

**EARLY RAND: PERSONALITIES AND PROJECTS
AS RECALLED IN *THE ALUMNI BULLETIN***

James Digby

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by

James Digby

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EARLY RAND: PERSONALITIES AND PROJECTS AS RECALLED IN THE *ALUMNI BULLETIN*

I. A NOTE ABOUT THIS COLLECTION

Having often been interviewed by historians writing about the evolution of RAND, it occurred to me one day that the *RAND Alumni Bulletin* contained much of value to anyone interested in RAND's development. It is my belief that RAND's success was due to its having attracted early on people who were both bright and dedicated. In recruiting these people management tolerated some pretty strange idiosyncrasies. And the Air Force permitted projects that served the national interest, not just its provincial interests.

The vehicle for capturing these recollections, the *RAND Alumni Bulletin*, exists because of the foresight and hard work of Milt Weiner, organizing president of the Alumni Association. Because alumni take pride in their own contribution to RAND's endeavors, whose aims they respect, they have contributed many useful reminiscences to the *Bulletin*. The contents of the *Bulletin* have been shaped by the Association's presidents, Milt Weiner, 1993-1999, and Mary Jane Digby, 2000-present. An active *Bulletin* committee has helped, and editing has been done by Michele Welsing, Brett Grodeck and Steve Baeck.

I have chosen excerpts from the *Bulletin* (through Spring 2001) which tell about people at RAND of its first ten years as a corporation and about projects of its first twenty years. Any such selection has to be somewhat impressionistic and I regret any omissions I may have made.

I have taken a compiler's liberty to include the piece on Colonel Joseph Fletcher being the first person to reach the North Pole. Joe came to RAND in 1964, but we had many contacts in the 1950's. Actually, I had known about

Joe since 1945. He had the idea for weather radar and I was the radar officer who, along with two weather officers, installed the first operational weather radar at MacDill Field, Florida., followed by others at B-29 bases.

While those of us at RAND in the early days soon learned that the accomplishments that we were so proud of also owed much to people outside of RAND, the partial list that follows notes some changes in U.S. national security policies and hardware which owed much to early RAND work. (A list might also be made of actions recommended by RAND which were not taken, such as re-engining the B-47.) Early RAND's contributions to these actions range all the way from inventing the basic idea and shaping its development to contributions that made things more effective. The list:

Systems analysis and the forecasting of future weapons

Map exercises, games, and political forecasts

Understanding Soviet behavior and economic strength

Design of the U.S. air defense system including:

Tying together radars to form a unified information system*

Usefulness of airborne early warning and design of airborne moving target indication.

Semi-active homing-all-way air defense missile--which became Hawk, which led to Patriot

Protected strategic air and missile forces capable of controlled response

Invention of the ICBM; silos for ICBMs,

-
- The attempt by our Air Defense Study team to demonstrate this to the military was a flop. My name for this system "muldar," was soon ignored after appearing in my unfilled patent application, our project report, and one issue of *Life* magazine.

Multiple warheads to confute defenses; many kinds of decoys,
new uses of chaff

Early ideas about low-visibility aircraft--later developed by Lockheed
and Northrop.

Greatly improved technology-enhanced logistics systems.
Measured responses to intelligence designed to affect enemy action*

Military uses of satellites; synchronous satellite orbit calculations
which have facilitated GPS, weather satellites, and communication
satellites.

Moving NATO from a military-specified unrealistic "requirements"
plan to a force planning process based a member government plans

Changing NATO strategy from automatic nuclear retaliation for any
incursion to a controlled response.

Many veteran RANDites will find it interesting to add to this list.

I commend to the reader the forthcoming *The RAND Corporation and the
Dynamics of American Strategic Thought, 1946-1962* (working title) by
Andrew May. Other excellent histories have concentrated on organizational
and administrative matters; May perceptively discusses the projects and the
people who led them.

It is those thoughtful, skillful, and dedicated people of early RAND who make
the present paper a useful collection.

*A notable example of this was the SAC alert in 1973 ordered by SecDef Jim
Schlesinger after intelligence reports on Soviet preparations to help Israel's
enemies. His deputy for Net Assessment was Andy Marshall, who had
worked out warning-response ideas at RAND.

II. The People

Dick Best
Frank Collbohm
Walt Cunningham and Monta Klappert
Mary Jane Bruck Digby
Joe Fletcher
Joe Goldsen
Stan Greenfield
Carl & Phyllis Greifinger
Oliver Gross
Olaf Helmer
Bob Holliday
Tom Jones
Herman Kahn
Amrom Katz
Jess Marcum
Ed Paxson
Norm Peterson's Collection
Nicholas Rescher
Gene Root
Fritz Sallagar
Gerhardt Schilling
John von Neumann
Wayne White
John Williams
Albert Wohlstetter

Note: The compiler acknowledges, with gratitude, the work of Mary Jane Digby in the difficult job of assembling the excerpts of Sections II and III.

Frank Collbohm Winter '96, page 6

"Now Hear This"

From Marv Lavin

"In those days, the DC-6 and the Super-Connie (i.e., Constellation) were two splendid prop-driven aircraft that literally shuttled RANDites on the 7-10 hour flights from Santa Monica to Washington. And we traveled first-class (long after these amenities were taken away from federal civil servants), thanks to Frank Collbohm's willingness to use money from RAND fees.

"It was once my good fortune to be, by chance, on the same aircraft with Frank, winging our way cross-country. Needless to say, I accomplished a change of seat to be at his side.

"I remember complimenting him, perhaps profusely, on his first-class travel policy....I also lauded his open-door office policy, inviting anyone on the RAND staff to stop in and speak to him without an appointment. And I remember telling Frank that his practice of walking the halls, stopping to chat unannounced in our little offices, was a four-star morale lifter. I talked about a number of other things, although nothing classified.

"During my extended talking, Frank volunteered very little conversation, so I cut off my chatter wondering whether Frank's hearing aid was on!"

Dick Best #20, page 4

DICK BEST writes from Santa Monica, California, and, at our request, includes the accompanying photo to go along with his note that a later picture appears in the April 1999 issue of the *National Geographic* magazine as part of its feature story "Return to the BATTLE OF

MIDWAY." Dick notes that the photo he forwarded "looks like a studio shot, but it isn't. It was taken by Admiral Halsey's staff photographer on the hangar deck of the



Before Midway.

U.S.S. *Enterprise*....I was a lieutenant aviator and executive officer of Bombing Six, which I later commanded." In the Battle of Midway, Bombing Six was launched against enemy fleet units headed for the island, and Dick, in a Dauntless dive bomber, attacked the Japanese carrier, *Akagi*. Dick says he would like the picture back (and it was sent) "not for my collections but to answer future requests. With the approaching end of the second millennium, everyone has gotten very history conscious and...anyone who has been featured in any remembered event is besieged by demands."

Walt Cunningham & Monta Klappert #15, page 3



Monta and Friend

MONTA HUBER
(nee Klappert)
from Escondido,
California, for-
wards a picture
with a note that
it "was taken the
day Walt
Cunningham
received word
he was selected

as an astronaut. Seeing his name in the last newsletter reminded me I had a picture of myself giving him a congratulatory hug in the corridor just inside the south lobby. Date—late 1960's. Only Walt knows actual date."

Greifingers #16, page 3



**The Happy
Hawaiians**

CARL GREIFINGER writes from Pacific Palisades, California, with an overview of his and Phyllis' careers. "Phyllis and I just celebrated our 50th with a trip to Hawaii (see picture of the luauing happy couple). For many of those years, we were collaborating at RAND, she in

the Engineering Department and I in the Physics Department. Getting off PCH at RAND always brings back a host of memories for both of us. Actually, Phyllis predated me at RAND by about three years. We came out to

California in 1955 from Philadelphia, where I had been teaching in the Physics Department at Penn and she at Swarthmore. We came because I had been offered a position in the Physics Department at USC. Phyllis came along for the ride and was quite pregnant with the first of our three children but very much wanted to continue being a physicist. With a big assist from one of our Cornell fellow graduate students, Hal Brode, who was then in the RAND Physics Department, she got a consulting job with the RAND Engineering Department. This was ideal because she could work whatever hours she wanted, and even do it at home, and take whatever time-off was needed to have babies. At that time (1955), RAND was not large enough for all of those waiting for security clearances. The space provided Phyllis was actually rented space at the corner of 4th and Broadway. It turned out that her next office neighbor was a parole officer to whom parolees periodically reported. This occasionally left her with a less than warm feeling.

"In 1958, after teaching for five years, I realized that academic life was not my cup of tea. I could see from the work that Phyllis was doing that high-quality research was encouraged and recognized by RAND, so I applied for a job in the Physics Department. Again with a big assist from Hal Brode, I got an offer that I couldn't refuse. I spent the next 12 years at RAND, where much of the work was in collaboration with Phyllis on problems of joint interest to the Engineering and Physics Departments. Then, in 1970, the big split-off of the RAND Physics Department took place, and we both participated in the birth of RDA. We are now both retired, though Phyllis does occasional consulting for APL back east.

"Although there are many couples who have worked together at RAND, I think we can claim at least one unique distinction. Our third child, Richard, was almost born on RAND premises. Phyllis was in line at the RAND food bar, with about six weeks to go in her pregnancy, when her waters broke. She was quite casual about it, but the RAND resident nurse, Lucy (Nowicki?) really got all shook up. Much to her dismay, Phyllis insisted on finishing lunch before heading for the UCLA hospital, where Richard was born three days later."

Frank Collbohm
Winter 96 Supplement

Frank and the Early Years



This year, we celebrate the 50th anniversary of RAND's association with the United States Air Force. This celebration honors, among others, FRANK COLLBOHM, RAND's first Director and President.

Frank was a flight test engineer at Douglas Aircraft Company, where he was an aide to Arthur Raymond, the chief engineer. In the fall of 1946, he brought a proposal to General Henry H. ("Hap") Arnold, chief of Army Air Forces, and to others in the

War Department, for the Douglas Aircraft Company to house a civilian research group to help in planning future weapons developments. The proposal was accepted, and a contract was written in the spring of 1946 establishing Project RAND, the forerunner of The RAND Corporation.

Frank served as President of RAND until his retirement in 1967. He died in 1990 at the age of 83.

In the celebration of PAF50 (Project AIR FORCE 50th), there will be much attention to the founding of RAND; to the charter, the organization, and the achievements of RAND; and to the legacy of Frank, who was so critical to the early years.

The RAND Alumni Association also wishes to honor Frank and the early years, but in a somewhat different way. We have put together this *Supplement*, which presents some recollections of Frank as a person and as a leader by twenty-one of his associates in those early years. The recollections are presented with essentially no change, in order to capture them faithfully.

Through the words of his contemporaries and colleagues, we hope that some of the diversity of Frank's interests, his vision, his contributions to the ethos of RAND, and his humanity will appear.

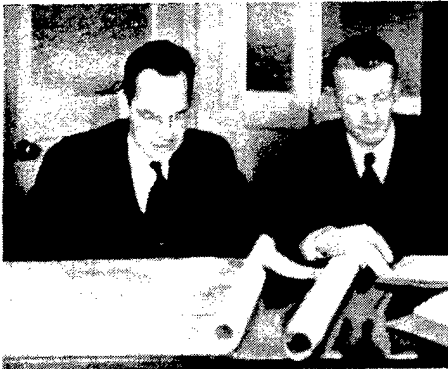
Frank and the pre-RAND years

Arthur Raymond's earliest memories of Frank Collbohm precede his association with The RAND Corporation by 20 years or more. They go back to about 1925, in the early days of Douglas Aircraft, when the two men worked together as engineers with drafting boards in the same room.

Frank did more than just draw. In 1933, he copiloted the new DC-1 airplane from Winslow, Arizona, to Albuquerque, New Mexico, on one engine to satisfy the demands of TWA's contract with Douglas—that is, that the airplane be able to fly over the highest point on their route with one engine out.

Frank copiloted several of the DC-1 test flights, and he lived to tell about it. On most of the flights, Frank had operated the landing-gear pump but, on one particular flight, which was a landing test, he wanted to watch the three-point landing. As Henry Holden reports in his book *The Douglas DC-3*:

"He went to the rear, pulled the door open, and lay down on the floor to watch the tailwheel's impact. Bailey Oswald had gone along to help with some of the instrument calibrations. Oswald stepped up to Collbohm's spot between the two pilots when Collbohm went to the rear. Allen and Tomlinson (the pilots) didn't notice the switch, as they were busy setting up for the landing. Assuming that Collbohm would activate the gear, they did not vary from their routine. No one had told Oswald he was supposed to lower the gear.



ARTHUR AND FRANK AT DOUGLAS, 1934

"Collbohm saw the tailwheel touch the ground. Sparks began to fly and he got a face full of direct tar and gravel. The DC-1 scraped along the runway on its belly. The underside of the aircraft was scratched and dented, and the propellers were bent, but there was no structural damage—a clue to the strength that would be built into the DC-3."

A short time later, the DC-2 was delivered to TWA and went into production. This made commercial aviation viably profitable for the first time without dependence on mail or other government subsidies.

Modern aviation's fledgling days had their humorous moments. As Arthur remembers it, "When we went to New York for Douglas to meet with Charles Lindbergh for TWA, we took a train because we wanted to be sure of getting there."

Then there was the problem of the atmosphere in the plane to contend with. As Arthur recalls in his autobiography *Who? Me?*:

"If one wanted to go above 14,000 feet, it was necessary to use oxygen masks. We had experimented with various kinds but they were a nuisance. So we conceived the idea of filling the entire cabin with oxygen-enriched air, and we tried it out on a DC-2. We filled the plane with a miscellaneous group of passengers, made up of members of the Board of Directors and their families, friends, and children,

and so on, because we wanted a cross-section of humanity, and we took along the company doctor to take their pulse, blood pressure, and respiration. Frank Collbohm established a station in the front of the cabin, where he had a tank of liquid oxygen and means for dispensing it. We flew over Boulder Dam at 25,000 feet and experimented with lighting cigarettes to see how large the flame was. We had to scratch frost off the windows to see through them. Luckily we emerged unscathed, but I have often thought when looking back on this, "How naive can one be?!" We did have enough sense not to adopt the method in production."

By 1935, when he copiloted the maiden flight of the DC-3, Frank was an old hand. As he said 50 years later, "I don't even remember whether it happened in the morning or the afternoon." No one even thought to photograph the event, and no one had any idea the day marked the start of an era. In marked contrast to today's over-exposed media coverage, history was then more often made in undocumented fits and starts that required the distance of years to appreciate.

After the war, when it became clear that an organization like RAND had to operate as an independent entity, not as a part of Douglas Aircraft, Frank started working on it against huge odds and many doubting Thomases.

Through discouraging meetings in the Pentagon, Frank held onto the idea of RAND's independence. He fell heir to the job of Director and later President of RAND by default when he couldn't recruit a suitable president from outside, and he served admirably in this role until his retirement in 1967. He strongly believed in the importance of RAND's being allowed to choose its own research program and was remarkably successful in maintaining its freedom to do so. <

... Arthur Raymond
(compiled by Walter Didur)

Frank : few words, strong character

Some people mean little while saying much; others mean much while saying little. Frank Collbohm was one of the latter. He had strong views and firm principles, although he was disinclined to enlarge on either. Fortunately, his principles included a readiness to listen attentively to divergent views and, more rarely, a willingness to change his own.

The first project I worked on at RAND in 1956 was a study somewhat pretentiously entitled "The Theory and Practice of Foreign Aid." (Foreign aid was not one of the things Frank viewed with favor.) The study formulated a theory of aid as an instrument for reducing the gap between the economic aspirations of people in developing countries and the poverty they experienced in their actual living conditions. The theory further reflected a view that the greater the rate of progress in reducing this gap, the better the chances for democracy in developing countries. This theory was expressed in a model I applied to the amounts of U.S. economic aid, the rates of economic growth in South and Southeast Asia, and the outcomes of provincial elections in these countries in the 1950s.

Charlie Hitch, Joe Kershaw, and several other distinguished RAND alumni thought reasonably well of this work. Watching Frank's face and listening to his terse comments when he heard the first briefing of the study, I realized that Frank did not! After the briefing, I recall receiving a telephone call from him, in which he said something like, "Shows a lot of work, Charlie." He didn't have to add that he found the case unconvincing and perhaps too mechanical, but something of this view was conveyed subliminally. (Despite his reservations, he never interfered in any way with the study's progress through RAND's review process, and its publication by Princeton Press in 1960.)

Frank and RAND's culture of the 1950s

I came to RAND in December 1948 to work in the Electronics Department. I soon became aware of the culture of RAND and of the values and attitudes of Frank.

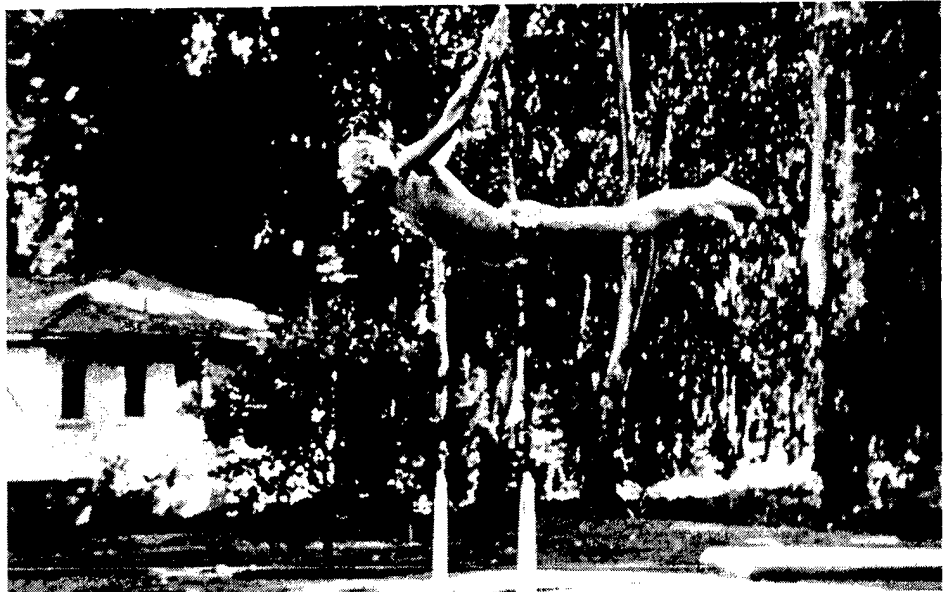
He felt very strongly that we must have intellectual independence from our client—the Air Force. They should not tell us what to study or even when to have a particular result and certainly not what the answers should be. He felt that this independence was a core ingredient of what made us a really worthwhile adviser and somewhat different from other “think tanks.”

He also felt that we should have only one client, the Air Force. He didn't think the Department of Defense was here to stay, as it was made up of civilians who came and went. Neither did he think we should work for the Army or the Navy. He wanted the Air Force to trust us to be devoted solely to its mission with no conflict of interest. It was understood that we would not discuss our findings outside of Air Force circles.

Not only should our research be independent of Air Force influences and pressures but, even within RAND, researchers should be free to pick their



KITTY AND FRANK



THE FLYING FRANK

topics and present their results. We underwent critical internal reviews before taking our work outside, but we were not pressured by Frank or the management for any particular result. I know that he disagreed with some of the subjects studied and some of the conclusions reached, but he allowed researchers to proceed.

In 1960, just before I left RAND, I went to see Frank and said I was tired of working on Air Force problems and would like to find other, and perhaps more constructive, things to work on. Frank said I could but that there would not be any money to pay me, so the message—the Air Force is our client—was clear.

Frank and Kitty were always gracious and supportive hosts at the parties they gave for the RAND staff. The attitude in those days was more that we were a team, and all were respected and appreciated.

When I came down with polio in 1952, I was bedridden for months. RAND kept me on salary and provided a safe and security services so I could work at home, and then supplied ramps and a sofa in my office when I first came back to work. This must have been with Frank's

approval, although Goldie was directly involved with helping and supporting us as a young family with two very young children. We know my recovery was faster and more complete because RAND, from Frank on down, saw us through. Barbara and I have warm memories even of that difficult time.

... Ed Barlow

Maintaining the independence of RAND's research product

One of the salutary legacies of Frank Collbohm's administration has been the priority that RAND continues to give to maintaining the independence of its research product. Frank was prepared to resist any policy-motivated infringement of RAND's independence to publish and disseminate its research findings. This was driven home to me in 1962, shortly after I had joined RAND, when an important government sponsor contested the findings of two RAND consultants, who had conducted an on-the-spot evaluation of the then newly initiated strategic hamlet program in South

Another occasion involved an internal RAND paper I wrote in the late 1960s, entitled "Insurgency and Counterinsurgency: New Myths and Old Realities." The essence of the paper was that the "new myth"—the "hearts and minds" explanation for the ripening setbacks in Vietnam's resistance to the Vietcong—was a less robust explanation for shifting loyalties than the ruthless effectiveness of the Vietcong's dispensation of penalties and rewards to motivate compliant behavior—the "old reality."

Frank evidently read the internal paper. One day he called. "Sounds right," he said. "I hadn't thought of it this way. Maybe you should develop it further," he concluded. From Frank, this was high praise. (The paper was subsequently published in the *Yale Review* and later was expanded in collaboration with Nathan Leites into a RAND book.)

Frank used a few words to say a lot—a characteristic worth recalling, admiring, and emulating.

.... Charlie Wolf

Frank, an uncommon man

Frank was, as you know, an uncommon man. I think he was originally from Wisconsin and entered college there. But he had to quit that frivolity and go to work. He never completed college, I believe.

Whether Douglas Aircraft was his first job I don't know, but he was there before World War II and came to the attention of Arthur Raymond, the chief engineer then (and until he retired in the 1970s). Frank really impressed me when I came to RAND (mid-1950s). Right off, I could see he was a good man—he didn't wear a suit and tie to work and, so far as I know, he never did (except for trustee meetings and such).

He was both the inside leader at RAND and the outside man as well. A person of wisdom, great common sense, analytical

ability, strongly held views, able to do almost anything from arguing successfully with Ed Paxson (RAND's first analytical guru) to dealing with Herman Kahn, not to mention Albert Wohlstetter! We had some genuine characters in those days—say from the beginning to 1970+. Frank was able to deal with the entire bunch all at the same time.

He had little ambition for personal aggrandizement; yet he acquired many accolades and much recognition as a leader of professional intellectuals. But even more important, those people developed an amazing amount of admiration and respect for Frank. In my view, that is a unique accomplishment.

He knew the great secrets of how to get ahead in our business:

- Get the very best people you can who are willing to work in a common endeavor for the general good of the client.
- Give them the freedom and license to do what they do best—don't tell them what to do or how to do it.
- If there is any credit or reward for their work, be sure they get it all and recognizably.
- But keep track of them!

And that was what he was able to accomplish! The only similar case that comes to mind might be Bell Telephone Labs in New Jersey in those post-war years.

If you developed a list of those people who either worked at RAND or came aboard as consultants or as summer experts, you would be amazed at the spectrum of world-class people we dealt with. The collection of people Frank was in contact with was most impressive.

.... Bill Graham

On the social side

Dick Goldstein, who had the reputation of being a respected photographer, sent in a picture of Frank, Jim Root, and Ben Rumph that was taken at a dinner party in the Goldsteins' home in February 1971. >

.... GOLDIE



JIM, FRANK, AND BEN

Frank, some personal glimpses

Frank seldom used profanity. His strongest words were "Shucks," "Golly," "Gosh," and "Gee."

Once *Time Magazine* sent a reporter and a photographer out to interview him. They said they were going to do a cover story on him. Unfortunately, Debbie Reynolds and Eddie Fisher got married that week and they were on the cover instead. The story said that Frank wore his shirts to work (I suppose meaning no coat). But the rumor around RAND was that it said he wore his *shorts*.

He loved the water and the sun and had a very good tan. He went to Catalina at the isthmus every weekend that the weather and his work allowed him to operate his motorboat. His wife, Kitty, served as his copilot; they also occasionally went to Mexico in that boat. <

.... Caroline Gay

Vietnam. Believing the consultants' findings to be overly pessimistic about the progress being made by the South Vietnamese government—a concern that later events proved to be without merit—the sponsor prepared a two-page rebuttal of the consultants' evaluation, which it proposed to attach to each copy of the RAND Research Memorandum that documented the consultants' fieldwork and conclusions. RAND's response was resolute. Speaking for Frank, Larry Henderson, RAND's Vice President in the Washington office, told the sponsor that RAND would never agree to such a procedure, and, if the sponsor insisted on such a course, RAND would refuse to perform any future work for the sponsor. The sponsor dropped the matter.

... Steve Hosmer

Managing by raising questions

What made RAND a wonderful place to work during the 1950s and 1960s, when I was there, was the role played by synergistic interactions. A synergistic interaction may be described as an interaction—commonly between people of different backgrounds—which generates hints of how to deal with existing problems as well as new insights. When John Williams designed the RAND building to facilitate interactions between the people in the various departments, I am quite sure he had this point in mind. Indeed, in my view, the main credit for making RAND the wonderful place it was belongs jointly to Frank Collbohm and John Williams.

What role did Frank play in the process of encouraging synergistic interactions? Not only did he read every Research Memorandum, he went around and talked to RANDites about what they had written. For example, after talking to me about a piece I had written on research and development, he told me about a piece by

Ed Sharkey and How Bailey on the development of radar during World War II. My interest was in explaining the requirements for success in R&D projects. And reading their piece and talking to them did, indeed, provide me with an insight I did not have before: Getting a piece of hardware to test, in however rudimentary a form, can save much time and much money.

As all former department heads know, Frank also used the weekly department meeting as a forum for raising questions, often very pointed questions, meant to spark interdisciplinary research. However, I think this approach was probably not as successful as his meeting with RAND people individually.

I once asked Frank how he got the idea of managing by way of raising questions. His reply was that was the way Donald Douglas, Sr., managed the Douglas Company. And incidentally, that is the way Thomas Watson, Jr., managed IBM when its fortunes were zooming.

... Burton Klein

Frank and civil defense

By the mid-1950s, several of us, notably Albert Wohlstetter and Herman Kahn, were impressed by the idea that passive defense, active defense, and counterforce had similar strategic effects. That was part of Herman's incentive to support civil defense, and he calculated that it was a cost-effective way to improve U.S. posture and to increase deterrence. (Less effect from Soviet attacks means less incentive to attack.)

Frank had a negative mindset about civil defense (though that did not carry over to Albert's proposals to provide shelters for SAC bombers). He had been delegated by Douglas Aircraft to disguise its plants; he had arranged for their roofs to be painted as city streets and otherwise disguised during

World War II. This had apparently resulted in some scornful remarks by his fellow engineers. So he disliked Herman's ideas about civil defense from the beginning—and, additionally, Herman's style of advocacy was quite repugnant to Frank (as well as to some senior Air Force officers). This led to Herman feeling squelched by Frank, to a certain defiance, and to Herman's departure to found the Hudson Institute.



"FRANKIE AND JOHNNIE" (JOHN WILLIAMS)

I don't remember much about the asymmetric civil defense readiness of the Soviets in the late 1950s being a major factor in Herman's relations with Frank—though many of the RAND engineers were skeptical of such reports, some of them based on observations by Leon Goure. Frank, in fact, chose Leon to counter some of the claims about the ineffectiveness of airpower that came from Guy Pauker's project, which interviewed Vietcong in the mid-1960s.

... Jim Digby

Frank's style in management

One recollection of the early days concerns a Management Committee meeting in the 1960s; that group of (then) division heads met once a week to discuss whatever Frank (or sometimes others) thought would be of interest to all.

Nobody was unaware, of course, that we were not managing RAND—Frank was.



ATTENDING A BRIEFING

On this occasion, Frank had some proposition he wanted to try out on us, possibly the idea of hiring Ed Lowe to help our briefing capability and style. Lord knows we needed it. As I recall, the group consisted of Frank, Goldie, Steve Jeffries, Ernie Plesset, Jimmy Lipp, Charlie Hitch, John Williams, whoever had replaced Gene Root, myself, and maybe others. Probably I was a stand-in for Ed Barlow, who must have been away. Frank stated his proposition and asked for a reaction from each of those present. The first respondent made a great speech, but he was against it. The second likewise. And so it went. I don't recall if there were more than one or two positive responses among us. Well, it seemed that Frank's idea was shot down in flames. So he asked for a formal vote—"Everybody against say nay," he said. Lots of nays. "Those in favor say aye." One or two aye votes, and Frank votes "aye." Well, he said, "I see that the ayes have it!" And so they did. ◀

... Bill Graham

What makes the Vietcong tick?

Frank Collbohm did not like to travel abroad. Allegedly, once when he was unable to avoid an important meeting

in Paris, he flew into Orly, held his meeting at the airport, and returned home without entering the city. But he often walked RAND's long, drab corridors when he wanted to talk to one of his staff members rather than have that person summoned to his office.

So I was not surprised when, one day in April 1964, Frank scratched at my closed door and asked if I had a minute.

The boss wanted to talk about Vietnam. "We are not pulling our weight," he told me as his only staff member specializing in Southeast Asia. I replied that I had visited South Vietnam a number of times during the previous decade, thought that an American involvement would be a big mistake, and wanted to keep RAND out of it.

Frank rejected my argument and told me to find ways to make the Political Science Department useful with regard to Vietnam. I replied that, in that case, I wanted him to come with me to Washington to get something started.

At the same time, Frank started a Vietnam project in the Economics Department, headed by Charles Zwick and including Charles Cooper, and a project in the Engineering Department, which included Amron Katz and, I think, Jack Ellis.

Frank agreed to go to Washington with me, so I called my friend Bill Sullivan in the State Department, where he headed the interagency team on Vietnam, and made an appointment. Bill had prepared a list of some 25 topics on which the interagency team would have welcomed RAND research. Most of the items on the list involved psychological warfare, in which I did not believe and, therefore, had no interest.

One item, way down on the list, caught my attention: "Who are the Vietcong? What makes them tick?" I asked Bill where this question came from, and he replied, "Directly from McNamara, who keeps asking that question."

Frank and I agreed on the spot that RAND would try to answer the Defense Secretary's question. I had in mind the impressive published study by Lucien Pye on the Chinese Malayan Communists and was hoping to interest him in a similar study on South Vietnam. As it turned out, Lucien had other commitments and was not available.

Frank left me in charge of working out the operational details of the project in Washington, so from the State Department, I went directly to the Pentagon, where Harry Rowen was Deputy Assistant Secretary of Defense for International Security Affairs, responsible for the Asia-Pacific region. I told him the whole story, and he immediately decided to fund this project.

The same day, I also visited Bill Colby, at that time the Central Intelligence Agency's Director of the Asia-Pacific Division, and asked for assistance to gain access to Vietcong prisoners and defectors. The CIA had a detention center in Saigon, and RAND's researchers were given access to Vietcong detained at that location.

I then recruited John Donnell and Joseph Zasloff to work on this project. (Part of that story was told by Tela Zasloff in the Summer 1994 issue of the *RAND Alumni Bulletin*.)

Work in Saigon started in May 1964, and by December more than 300 interviews had been collected and analyzed. The results were briefed to Assistant Secretary of Defense John McNaughton. The message was that the Vietcong, prisoners and defectors alike, were extraordinarily motivated, highly dedicated political combatants, who would be very difficult

to defeat. The briefing was never taken by his staff to Secretary McNamara.

While the interview program continued, in early 1965, Frank put Leon Goure in charge, who used it to study primarily the impact of aerial bombing on the morale of combatants and civilians. He reported that aerial bombardment had a very devastating impact on the enemy's morale. McNamara asked to be briefed by Goure every time he returned from South Vietnam.

... Guy Pauker

Frank and a RAND "might-have-been"

In 1952 and 1953, RAND pursued ICBM work at an accelerated pace via a project for which I was project leader. By 1953, this work was sufficiently mature for Frank to begin briefing the Air Force. Interest was sufficiently high—as were some high-level DoD reservations—to prompt the activation of the von Neumann TEAPOT Committee to review the ICBM issues and opportunities. In the late fall of 1953, RAND was requested to brief the full TEAPOT Committee in Southern California (in Inglewood). The onus of the briefing fell on me, and the briefing turned out to be a nearly four-hour interactive session, with members of TEAPOT, most particularly von Neumann, doing a lot of thinking out loud. RAND's views, assessments, and recommendations were essentially accepted wholly by the TEAPOT Committee. The RAND version of the briefing was reflected in a bowdlerized fashion in Special Memorandum SM-21, published in early February 1954; the TEAPOT recommendations, mirroring the RAND views, appeared two days later.

The RAND briefing and report had one unexpected consequence. Trevor Gardner, the main sponsor for TEAPOT, several

top-level USAF officials, and some members of TEAPOT itself approached Frank to sound him out on the notion of RAND assuming a "systems engineering" role for the ICBM, since we had persuaded these people that we had the technical, operational, and managerial core to execute such a function. Despite urgings from me and others that Frank seriously evaluate this option, he quickly would have none of it, saying that it would change RAND unacceptably, a decision that some of us felt was overstated and that led to some temporary coolness. As it turned out, of course, Ramo Woolridge and STL subsequently assumed that systems engineering role.

A few years later, another somewhat comparable RAND enterprise—the System Development Corporation—was spun off, in a model we had thought might work out for the proposed RAND role as overseer of the initial ICBM program. On balance, Frank may very well have been right in declining the ICBM role, so the whole episode is in the "might-have-been" speculative category.

... Bruno Augenstein

Frank and the computer

RAND took beneficial occupancy of its first building in 1953 and because of its new prominence in the community, decided to host an open house about a year later. Since RAND offices, in general, have little of interest for the general public to see, Frank enlisted the computer group—then known as the Numerical Analysis Department—to organize some action exhibits.

At the time, RAND's JOHNNIAC machine was under construction but much of our computing was still on punched-card equipment, although we had received and installed one of the early IBM 701

machines. Among our exhibits were

- An IBM statistical sorter that sorted IBM cards by color.
- Games like tic-tac-toe running on punched cards.
- An arrangement that would calculate and punch out on a card the birth day-of-the-week from a calendar birthdate.
- A demonstration of simulated radar blips printed by an IBM 407 mechanical printer.
- A display of components from the JOHNNIAC project.
- A computer-generated display of a bouncing ball.

By far and away, the most crowded part of the building was in the computer area.

Within a short while after the open house, we received a memo from Frank, in a slightly scolding tone, congratulating us for stealing the show, being natural-born hucksters, and having suggested to the public that the only activity around RAND was computer-related things.

Franks was an engineer by training and would always encourage his computer group to do whatever it thought was in the best interests of the corporation. He liked to "invent," and many conversations with him would start on an administrative or procedural matter but drift off to some technical aspect of computers in which Frank was interested and wanted to understand more. Such an event could happen while others, including management, were also present, idling away the time.

On one occasion, Frank was having a series of meetings with the personnel of each division/department to discuss the state of the corporation. At the NAD meeting, he asked if there were any questions or comments. Someone got up and complained about the free coffee in the dispensers in the coffee rooms; central

brewing had been replaced by instant-coffee dispensers throughout the building. After a rather lengthy diatribe on how awful the instant coffee was, Frank looked the speaker in the eye and informed him that the coffee met his needs; namely, that it be hot and dark in color. That ended the questions and the meeting.

I don't recall whether the occasion was completion of the JOHNNIAC machine itself, or the successful 700-hour error-free run of a dataflow model which we called JOHNNIAC, Jr. Bill Gunning, who was chief engineer on the project, thought it would be nice to celebrate with champagne, but Frank had an ironclad policy against even wine in the building. Eventually some astute person [might it have been John Williams?] observed that topologically the patios were not inside the building. The remaining problem was how to get the bubbly stuff in; Ev Gunning [Bill's wife] put champagne into washbuckets of ice, and we covered the tops with a rag or towel and brought it into a patio after business hours. We probably thought a moving bucket of ice might also be topologically not in the building! Anyway, we did have our celebration with champagne. I have no idea what we told the guards who, in those days, were very strict and carried sidearms.

... Willis Ware

Meat and potatoes in Washington, D.C.

Some of my happiest hours at RAND were spent with Frank when he would visit Washington. There the two of us would have dinner alone, liberally drinking martinis and having meat and potato dinners, which Frank preferred. The martinis were by far the most important part of the evenings, which led to long and fascinating discussions of experiences by Frank of his years as a test pilot and other

episodes of his colorful life. One of the most interesting episodes happened before World War II. He was assigned to fly the DC-3 to Dayton, Ohio, to have it certified. He had to make a number of stops and discovered that he would be arriving in Dayton at night, which he had not planned on, as there were no lights on the runways in those days. He radioed some of his friends to please all come to the airport about 10 p.m. with as many cars as they could, so that they could light up the runway for him. They all did, and he landed safely.

I can remember one evening in particular, as he was engaged in a fierce conflict with the then Secretary of the Air Force, whom I do not think I shall name at this time. Frank was insisting on the independence and freedom of RAND, and the Air Force was trying to impose some restrictions. After a few martinis, Frank quietly said words to this effect: "If that SOB doesn't give in tomorrow, I am going to close up RAND." I immediately remonstrated with him and said that a number of younger people, such as I, loved RAND and were dependent on it for our livelihood. We were proud of the contribution that we thought RAND was making to the national security of our country and were enjoying it in the process. Frank said he understood all this, but he wasn't going to give in to the Secretary, that it was a matter of principle, and that yielding would lead

to the decline of RAND. One more martini made him even more adamant. We had our meat and potatoes and both retired.

The next day I was most anxious, needless to say, to learn about Frank's meeting with the Secretary. He arrived late morning in the Washington office with a quiet smile, saying that the Secretary had agreed with him after all, and that all was well. I had not taken his words idly, as I knew how stubborn he could be at times, and he was quite likely to do what he said if he had failed in his mission.

We miss Frank's integrity, imagination, and leadership. He represented the ultimate of what RAND should be—selfless dedication to the public service of our country.

... George Tanham

Frank...unfailingly considerate

I have a lot of wonderful memories of Frank, but the most outstanding are of the ways in which he associated with the members of the RAND staff regardless of their position or background. While he could be firm to the point of hard-heartedness on some professional matters, when it came to personal relations, he was unfailingly considerate of the other person. When he was at work, Frank was always accessible and maintained a real "open door" policy. Staff members did drop in to see him often, but, if they called on the phone, he was usually reluctant to talk. He preferred going to their office. I was never sure why, but once he said something that made me believe he felt that the person would feel more comfortable and be more communicative if Frank was in their office rather than having the person come to his office.

He was well aware of the feelings of other people, and I remember just after he had obtained his "big" boat, he asked several groups to come to the boat on Sundays so that he could show it off.



"REAL" DEDICATION: GOLDIE, ARTHUR, AND FRANK



I had been invited and was just going up to the boat when a senior member of the staff (who shall remain nameless) asked me what I was doing there. I was about to reply that I, too, had been invited when suddenly I realized that Frank was right behind me and was probably aware of what had been said. Frank took my arm and led me onto the boat and took me on an extended tour, including the engine area. Later, as we were all leaving the boat, the senior RANDite asked where I had been. I told him that Frank had taken me on an extensive tour—a fact to which he responded by indicating that HE hadn't gone on the BIG tour. And I wondered whether Frank had done it deliberately.

Probably most people knew that Frank had a hearing problem and wore a hearing aid, but I am not sure how many people knew how bad his hearing loss was. Frank was a master at reading lips, and I think he depended more on that ability than on the sounds that came out of the hearing aid. On one occasion, I was in his office waiting for him and the telephone rang. I picked it up and was met with an extremely loud noise because of the high volume setting that he had on the phone. I put the phone down hurriedly as Frank returned, but not before he realized that I was aware of the high setting. Without a word of explanation, he gave the phone a friendly pat and went right into the topic of our meeting.

One of my fondest memories is of a Christmas party where one of the guards was playing Santa and it had been prearranged that Frank's name would be the first one drawn. But no one realized that the present would be a "kissing towel" except Bernie Wilson who was to give him the present. She was not at all

enthusiastic about giving it to him but, after he opened it and saw what it was, he smiled and gave Bernie a friendly hug, which eased what looked like could be a tense moment. It always seemed to me that Frank knew how to take the pressure out of a situation when it was necessary.

... Rita McDermott

Frank and the psychologists

In the early years, RAND had a Psychology Research Department (PRD). Its main activity was the Systems Research Laboratory, which conducted a series of man-machine simulations of Air Defense Direction Centers and evolved both a theoretical structure and a procedure for improving the performance of such systems. This "system learning" so impressed the Air Force that they wanted to implement the training program throughout their Air Defense Direction Centers.

RAND accepted the contract, the Systems Development Division of RAND was born, and the training program was initiated, later to become the basis for the establishment of the System Development Corporation (SDC). Frank generally regarded the achievement as due to the engineers who were part of the program rather than to the psychologists.

Then, the Psychology Research Department was dissolved and a number of the staff left RAND. Sometime later, in a discussion with Frank, I asked "why was PRD disbanded?" Frank, in his usual direct and unequivocal style, said in effect, "I can take psychologists one at a time, I just can't take them as a group." There was no further discussion.

... Milton G. Weiner

Sea-worthy decisions

One day Frank invited a few RAND newcomers for lunch aboard his newly-acquired boat, anchored near the also newly-constructed Santa Monica boat harbor.

I didn't know then if Frank was as dedicated to sailing as he was to RAND; the two "careers" were kept separate as far as we knew then. But lunch, despite its nautical setting, was focused on RAND issues—in a relaxed and leisurely manner. I was steering into a discussion of how social science at RAND could best function in two widely dispersed locales—"here" in Santa Monica and "there" in Washington.

Frank wanted us all to be in close contact and to make do with the phone, telegraph, and frequent visits. Those of us in the social sciences felt it important to be in Washington for access to policy agencies, personnel, and data.

We "compromised": We would do lots of traveling between the coasts and most of our staff—but not all—would remain in Washington, keep in close touch by travel and telephone, and we would beef-up not one but both staffs.

There was ample discussion and tentative decisionmaking well after the "boat ride," but as time evolved, we merged our efforts, *split* the travel load, and eventually came to admire the foresight of our skipper.

... Joseph Goldsen

Frank and the Air Force Association

When I first visited RAND as a candidate in early 1959, I was sitting in the East Lobby awaiting Ed Barlow (my host) when Frank Collbohm entered the premises. "Good morning, Frank," said the guards on duty. Being a staid East Coast type, I was surprised to hear RAND's President greeted by his first name. It was shortly after I joined the staff that I learned that RAND was probably the only place in the world where the President was called "Frank" and the coffee man known as "Mr. Wilson."

In any event, those who knew Frank will appreciate that his objective was to have RAND known by its research and by the individuals on the research staff.

Consequently, Frank kept his public profile low, almost always deferring, as he would put it, to the "important people around here, those who do the research and report on it to the Air Force."

If you knew Frank really well, you soon realized that this low public profile suited him just fine, for, in spite of his strong beliefs and an occasional explosion, he was in fact a very shy man. Thus, when invited to address the Air Force Association early in RAND's history, he replied with a "no thanks." His refusal letter was intercepted by Dick Goldstein, then RAND's number two man, who corralled Frank and said,



THE TRIUMVIRATE: LARRY HENDERSON, FRANK, AND GOLDIE

"This isn't an invitation, Frank, it's a command performance. Besides, it's really easy, all you have to do is stand when introduced and tell them who you are and where you come from."

So it came about that at the AFA annual meeting that year, Frank delivered what is certainly the shortest address ever: Following a lengthy and laudatory introduction, Frank arose and said essentially, "Hello, members of the AFA. I'm Frank Collbohm from The RAND Corporation in Santa Monica and (he ad-libbed) it's a great pleasure to be here with you." Returning to his place at the table, he shared a triumphant little smile with all—and left a mystified audience to proceed with its affairs.

.... Gus Shubert

A cup of coffee with Frank

It was a beautiful spring day in the year 1964. I was sitting in my office when Frank walked in and asked if we could have some coffee together. I stuck my head out in the corridor and spotted Mr. Wilson, the man who brought coffee (interesting footnote on life at RAND in those days is the fact that we referred to the coffee man respectfully as Mr. Wilson, while addressing the President of RAND as Frank).

Frank opened the conversation by remarking that the world situation was not bad from the point of view of strategic warfare. We had plenty of weapons and strategies for the problem of nuclear war. However, with respect to the problem of limited war, guerrilla warfare, and nation building, we seemed to be accumulating many problems in the area of

constructing U.S. responses to the chaos in Southeast Asia. I answered by asking what he intended to do about this, and he replied, "I am looking for three senior, imaginative fellows to go over to Vietnam, look at the situation, and help us construct a research program for Washington." By "senior, imaginative," he meant three old guys whose minds were not cluttered with preconceived ideas. Leon Goure and Bill Graham were mentioned, and I knew immediately who the third guy would be—me!

And that is how I got the news. From there, I would have to go on alone to the really tough problem—how to break the news to my wife. Showing signs of a man who had completed his job, Frank stood up, smiled, and left the room.

.... Amron Katz

"I always knew Frank was my boss"

One day in 1961, a letter inviting me to join RAND came from Bill Graham, Engineering, RAND. I visited RAND and was interviewed by a number of people, including Larry Henderson and Frank Collbohm. The interview with Frank was brief. Frank was conducting a conversation with someone else in his office as I was ushered in. Introduced, he looked at me and said, "I hear you've been found acceptable by Bailey and Sharkey. That's good enough for me. If you take this position, just remember one thing—you work for me!" We shook hands on that, and that was the way it was. A few years later, in RAND liaison positions, I had to work with everyone at RAND, but I always knew Frank was my boss....

In 1965, I brought a delegation of the TAC Headquarters general staff to visit Santa Monica. Typically, Frank sat in on



HONORS FROM GENERAL HOLZAPPLE

the discussion between the TAC staff and RAND analysts. A major TAC interest was the need for a fighter with a gun—the TAC F4C only had missiles for air-to-air engagements. The North Vietnamese knew this. Their ground controllers always tried to put the MIGs in a position to engage the F4C with a close-in high attack maneuver. Agile as the F4C was, its pilots could rarely bring their sidewinders, with narrow field-of-view infrared detectors, to bear and lock on to a MIG-17. We were losing a few aircraft to the MIGs in this fashion and nearly always missing with the missile the few times our pilots risked a shot, because, when they did, the missile was fired at the edge of the missile's G-turning envelope. Frank suggested that we would be wise to put some A-1s, the old piston fighter, up north patrolling at about 15,000 feet, the best altitude for the A-1 and about the worst for the MIG. He said the speed and loiter time of the A-1 at this altitude was somewhat better than that of a MIG and, of course, the A-1 was armed with four 20mm cannons and a computing sight. When the TAC Director of Operations objected, Frank pointed out that just the past week two Navy A-1s had shot down two MIGs that had tried to

jump them. He said, "The A-1s simply did level 360s and came in behind the MIGs, which couldn't turn at this altitude, and blew them out of the sky with their guns." Frank then pointed out that he had tested this maneuver with the A-1 himself and had taught it to the Navy years ago—much to the surprise of everyone present.

Frank was a straight-from-the-shoulder man. He never meddled in my work, which was always about 2,000 miles away from his office. But my encounters with him gave me the feeling that, if I ever screwed up, Frank would have had me "out of there" in an instant. But when he was President of RAND, I always knew who my boss was, and I loved the arrangement!

... Merritt Olson

Frank and the green door

Early in 1948, a Physics Division was set up at RAND with three staff members initially: a director, David Griggs; Ernie Plesset; and Sam Cohen. Although Frank was continually aware of the main activities of the division, he let it "do its own thing" and did not maintain a close day-to-day management relationship with it. Part of this was the result of the Atomic Energy Commission security requirements at the time, and part was perhaps because Frank didn't want to be bothered with the green door.

When Griggs went to teach at UCLA, Plesset took over the division. He had close ties with Los Alamos and Ed Teller. Since, in those days, only Plesset and Frank had the necessary clearance, and knowing that Frank loved a good secret, Plesset told Frank that the H-Bomb was soon to become a reality.

By 1950, AEC asked RAND to study nuclear weapons effects and thus became the first non-Air Force sponsor of research

at RAND. In 1951, Larry Henderson briefed President Truman on the H-Bomb effort. The Physics Division went on to develop a number of concepts, inventions, and contributions to nuclear weapons development—decoupling of underground explosions, MIRVing, EMP effects, and ICBM basing, to mention a few. Although Frank was broadly aware of these efforts, he took little personal involvement in the research.

... Bob LeLevier (by way of Dick Hundley and Al Latter)—adapted

Frank and the research community

One day Frank came up to my office, saying he'd quit a certain group and I should replace him. The chairman of this group was Clark Millikan (son of *the* Millikan) of Cal Tech and the members included Bill Tinus (Bell Labs President), John von Neumann, Charles Lindbergh, J. Barkley Rosser (Cornell University mathematician), George Kistiakowski (Harvard), Charley Lauritsen (Cal Tech), and others. I said something like "Are you kidding?" "No," he said, "it'll do you good." Then he puts in a call to the Secretary of Defense. "Hello, Charlie, this is Frank," he said. (I think "Engine" Charlie Wilson was the Secretary then, I may be wrong.) "I want to propose Bill Graham here to take my place on the BMC, that okay with you?" Frank then turned to me and said, "The next meeting is in Washington on Thursday." What I learned from all this was that Frank knew practically everybody and they all knew him.

When I was doing the Ballistic Missile Defense project, Frank thought we should develop a sequence of consultants to critique our ideas and perhaps to be

challenged to produce some of their own. Okay with me, but who and how to contact them? The next thing I knew I had Luis Alvarez, Ed McMillan (both Nobel Prize winners from UC Berkeley) in all-day discussions. Then came Johnny von Neumann, Arthur Raymond, Jerry Weisner (then still at MIT), Dave Griggs (who was a regular at RAND, consulting for the Nuclear/Physics Division), and Charley Lauritsen among others. Those are the ones I can recall now. It was quite an exciting time and experience for me. Frank knew all these people—one phone call and they came several times.

There was the time we undertook a study of the Polaris missile system. Much later I was to serve on the Polaris Scientific Advisory Committee, when Admiral "Red" Raborn was still the Polaris Project Director. I think Bruno ("a tree full of owls") Augenstein was our major force in this effort. At the time, the Air Force was dead set against such an activity by us. I think Curtis LeMay was Chief at this time. In any event, he called Frank in an attempt to stop the study. As you might expect, Frank told him to save his breath. Then LeMay threatened to cancel the RAND contract, and Frank told him to go ahead—we'd have it in all the papers in the morning. And we did go ahead. When our report was to be distributed, an Air Force review was called for. That resulted in another go round with his old friend Curt. Especially since we had said this wasn't such a bad idea for the country. It was just too bad the USAF didn't have any submarines. Anyway, I recall that Frank stood up for our troops and to the Air Force challenge on the principle that RAND could study what we thought was important and the Air Force could not prevent the publishing of our results. This was the bedrock foundation of RAND's existence and reputation (all very fine but it required good, honest, and relevant work).

Frank was a wonderful man, a great leader, and a fine manager of an intellectual and

analytical zoo—namely, The RAND Corporation. It was a great experience and a privilege to work with him and with all the other interesting people at RAND. <

... Bill Graham

Ode to FRC (1967)

There's a skipper ashore in a famous Bay City,

Who prefers a sea chanty to any city ditty.

Who steered our course through bureaucracy's layers,

But never seemed worried or showed any cares.

An outstanding leader, a truly great man,

Who worked out the plan from which RAND began.

Whose interests run deep and exceptionally wide—

From Econ to Asia, to an engine's inside.

Who seldom wrote letters or presented orations,

Relying on Goldie for staff relations.

He counted on Steve for community show,

And counted on Scott to count up the dough.

And there was Larry as near as the phone—

The latest RM was the cause of the groan.

But Frank is the man who stood at the head,

They could have named us RANDbohm instead.

And speaking of heads, they gave him some keys

To a washroom that's private and aimed to please.

The press said he wore shorts, which was never denied,

But they failed to mention he wore them inside.

Frank held a firm grip on the Company's reins,



RETIREMENT AND "DOWN TO THE SEA..."

And insisted "First Class" on horses or planes.

He soon will be traveling on extensive vacations,

Which will make him more expert in foreign relations.

So grateful RAND gave a transistorized LORAN

To be sure he gets back to where he began.

And after Tahiti and many a land,

We'll expect his return to the gang known as "RAND." <

... Dave Lederer

The *Alumni Bulletin* staff wishes to extend its deep appreciation to all Frank's contemporaries and colleagues who contributed to this *Supplement* and, in particular, to Walter Didur for his help in preparing Arthur Raymond's write-up and to Elsa Goldstein for the pictures provided from Goldie's collection. Special thanks also go to Malcolm Palmatier for his help in preparing the *Supplement*.

While the *Bulletin* cannot guarantee the validity of any of the material presented in this *Alumni Bulletin Supplement*, we assume full responsibility for the view that these recollections will be a source of interest and fond memories for some of our members.

On Being a RAND Secretary

by Mary Jane Digby



Mary Jane Bruck in November 1956

I started working at RAND as a secretary in March 1955. I had come to California four years earlier from a small town in Illinois; I'd just turned 18 and had a one-way train ticket and \$60. I walked into Douglas Aircraft's Engineering Division on Ocean Park Boulevard and got a terrific job as a stenographer, making more money than my two older sisters were making as nurses. (Thus began a family invasion—soon my three younger sisters and both brothers were working at Douglas.)

After several years, I set my sights higher. Wouldn't you know it—the man who interviewed me at RAND, George Clement, was a very close friend of my boss at Douglas—who did not know that I was out looking for another job!!!

The Early Days

RAND was good at training secretaries. We had a one-day course and a fairly complete *Secretary's Handbook*. Most new employees were in "Purgatory," an uncleared area, for several weeks until they got temporary secret clearances. There was also an area "behind the glass curtain" where a Q clearance was required and where Nuclear Energy (later, Physics) sat.

In addition to RAND's secretaries, some women (and a few men) were "computers" and ground out big calculations on Monroematic hand-entry calculators.

The IBM Selectric came along, and we had to learn how to lift out the "8-ball" to change typefaces. We typed on vellum backed by orange carbon paper to produce masters for the ozalid process used to reproduce most of RAND's internal paperwork. We also did many, many forms with eight or nine carbons.

I worked for five years in Missiles and Electronics. One officemate, Shirley Ruge, has remained a dear friend; when we explain when we met each other, we have to add that we were still in diapers! Another secretary whom I worked with—Marie Saunders—has gone on to be a vice president in a RAND-type company. In my fifth year, I met the most important human being ever to come into my life after my father. Jim and I were married in December, and I worked for another year until, expecting, we bought a home in Malibu. Just after moving in, we went to Washington, D.C., where Jim was on a task force on air traffic control—and I became a mother.

Hardship Post?

Early on, I'd taken a UCLA extension course in French cooking—which I dropped when Jim proposed. The course came in handy as we began giving dinner parties for RAND's visiting dignitaries from all over the world. This continued after we moved our young family to Paris for a couple of years and accelerated during the years Jim was assistant to Harry Rowen.

During the eighteen years that I took off to raise three children, I served on the UCLA Art Council (the only non-child-oriented thing I did in years and years). For several

years, I was also an elected director of the Malibu Township Council, a coordinating civic group. And I was very active in Little League, Cub Scouts, and the PTA, becoming president of each.

In 1980, when the PTA started talking district president, I decided it was time to go back to an eight-hour job—especially since the children were all going to be in college. I wasn't sure I wanted to work full time so I came back to RAND as a "floater." What a learning experience! For a short time, I even conducted secretarial training and worked on updating the *Secretary's Handbook*. I highly recommend a few months of floating—though I realize it is not for everyone, it does help in getting to know people in various departments.

Another Level

Then a front office job opened up, and life changed. Our daughter Leslie left for college at the same time, prompting me to study for Certified Professional Secretary accreditation. It is a lot to absorb in evening classes, since you must pass a two-hour exam in each topic: accounting, business law, management and economics, behavioral science, and office administration and communication. Last year, I was elected National Treasurer for our Association (though accounting was NOT my favorite subject!).

Working for a vice president, Steve Drezner, was pretty strenuous. But, instead of kicking back after work, I decided to become active in RAND's Recreation Committee—and became very much a convert about how it can build staff morale and a feeling of togetherness. It was quite a challenge to give a fun party for two or three hundred at noon or at 5 p.m., while getting out a day's regular work. Our biggest was a hoedown party for 1,200—and the caterer was late and hadn't cooked the chickens ahead of time! But RAND people *do* enjoy each other's company, and RECcom brings people together for fun occasions. It sure satisfied my desire to organize—everything and everybody!

Joseph Fletcher
#15, pages 6 & 7

SPECIAL REPORT

Revised View: RAND Alumnus Joe Fletcher First to Set Foot on North Pole

by James Digby

Those advocates who have, over almost 90 years, argued the claims of Admiral Robert E. Peary and Dr. Frederick A. Cook to have reached the North Pole first could all be wrong. It now appears that the first man to accomplish this feat was Colonel Joseph O. Fletcher, a former RAND colleague, when he alighted from his Air Force C-47 in 1952.

This latest finding comes from a book published this spring by researcher Robert M. Bryce, who devoted eight years of painstaking analysis to the journals of Peary and Cook, reporting their efforts of 1908 and 1909 (*Cook and Peary: The Polar Controversy, Resolved*, Stackpole Books, Mechanicsburg, PA). His conclusions: both the likable Cook and the more remote Peary doctored the records of their journeys which were, in any case, perilous and heroic.

To those of us who know Joe Fletcher, now a resident of Boulder, Colorado, this recent finding is gratifying. Joe was a pioneer who had used technical devices for achieving important ends ever since, as a young flier, he was in a squadron that employed newly developed microwave radar to end German U-boat dominance of our East Coast in 1943 and 1944. Using this new radar gave him an important idea: These sets could detect rain clouds, especially bad storms. So he developed weather radar tracking systems and sold the idea to the Army Air Corps' Weather Wing in time to help end a disastrous series of weather-related accidents, notably with our giant new B-29 bombs. I remember this well, because I was the

radar specialist of a two-man team that installed these devices at airbases from Florida to New Mexico to Utah.

After World War II and in the early years of the Cold War, the Arctic became increasingly important to the U.S. Air Force. Joe flew many of the Air Force's exploratory flights there and established the first base on a large ice island originally called T-3, but later called Fletcher's Ice Island. This was the site of a migrating U.S. (later Soviet) scientific outpost near the Pole. It was during this period that he landed his C-47 at the North Pole in 1952.

Joe tells me that he talked the Air Force Commander in Anchorage into letting him have one of two elderly C-47s that had been equipped with skis. Joe wanted to explore Ellesmere Island, but the commander said he should try for a North Pole landing first—it was only about 100 miles from their base at T-3. So, Joe waited a few days for good weather and, on May 3, 1952, his small party took off, including expert pilot Bill Benedict and scientists Bert Crary and Bob Cottrell.

Benedict and Joe debated whether to land on a refrozen stretch of ice or on rougher old ice; they, fortunately, picked the old ice. The other choice proved to have only 15 inches of ice, not quite thick enough. Landing about noon, they stayed for five hours, taking numerous sun shots with an accurate sextant to fix the location. The party took a number of depth soundings; the ocean was about 12,000 feet deep at that point. They did not erect a monument—Joe said the ice would not stay put—but they did release a number of drift bottles with notes.

(see next page)

Fletcher (cont'd)

Later on, Joe became a highly regarded Chief of the Air Force Advisory Group in Oslo, and later Head Long-Range Planner for the Air Force. I will not soon forget the copious supply of Dutch gin martinis he fed me in 1960 at the old Norwegian farmhouse where he lived with wife Lynn and his large family. During the last half of the 1960s, after retiring from the Air Force, he became a valued colleague at RAND. Later, he went on to head the National Oceanic and Atmospheric Administration's Boulder, CO, research laboratories, then became Assistant Administrator of NOAA in Washington. He returned to Boulder and more research before retiring there.

When I talked to him while writing this piece, Joe expressed his great admiration for both Cook and Peary. Cook, he said, was "an extraordinary guy." His journals sounded like they were written on the spot. Peary's, he thought, showed signs of later editing. "But," he requested, "please send the clippings on Bryce's book," which he had just learned about.

Stan Greenfield Winter '95, page 9

From Stan Greenfield

"I will never forget the ground breaking for the building at 1700 Main Street. I was a recent arrival at RAND with a shiny new bachelor's degree in meteorology. Frank Collbohm, the first President of RAND, came to me during my first summer (1950) and said 'you're a meteorologist. In several months, we are going to hold a groundbreaking ceremony for the new building. I want to set a firm date, and I want to make sure that we have picked a day when it will not rain during the ceremony. I want you to tell me whether the day we have picked will meet that condition.' How could I explain to Frank that you cannot make a meaningful forecast that far in advance? Remember I was the 'newest kid on the block' and he was the boss. I immediately scurried around and examined all the historical weather data that I could find for Santa Monica and Southern California. I consulted with the faculty in the Meteorology Department at UCLA. I spent hours talking with the Weather Service people at Los Angeles Airport. After about two weeks of agonizing over the data, I was ready. I tossed the best coin I could find and told Frank that it would (probably) not rain during the ceremony on the day that he chose. When the day finally arrived for the ground breaking, it was pouring rain. The ceremony was set for noontime, and I was petrified. I knew my days at RAND were numbered. At 11:30, it suddenly stopped raining, the sun came out, and we all walked to the building site and held the groundbreaking ceremony. At 1:30, we all returned to our offices, *and the rain started again*. Frank, of course, was convinced that this was a triumph of science over the elements. I have never made another forecast since, and never intend to again—after all, why push my luck?"

Joe Goldsen
Winter '96, page 9

"In the Beginning"

From Joe Goldsen memo of 5/23/68

"In December 1947, I was invited by a man named John Williams to visit Project

RAND of the
 Douglas Aircraft
 Company for
 the purpose of
 mutual
 inspection
 regarding a job
 in Santa
 Monica. New
 York was under
 a foot of snow
 and I hadn't re-
 visited Southern
 California since
 my departure
 from L.A. High in 1932.

"I hadn't known him before nor could I possibly imagine why an astronomer would be working at Douglas, let alone why he might be interested in me.

"But, as I said, it was snowing, so I came for a week—all expenses paid.

"After three days of intensive and very secret conversations (RAND was almost an un-project then, so unmentionable was its existence), I knew I wanted to help make and be a part of 'RAND's' future—whatever the hell that was.

"We talked each other hoarse for those first three days—the 'we' started with John Williams, then laid up with a sore throat. His ordinary whisper was reduced to a near-complete hush. Then Frank Collbohm, Ed Paxson, Olaf Helmer, a wonderful man now dead whom most of you never knew named Abe Girschick, Abe Kaplan, Leo Rosten, and a few others. When the talks ended, I sat myself down and did what everyone else at 4th and Broadway did to earn his keep: I wrote a memo.

"...I recall saying something like this: 'I have been at RAND for three exciting days and I would like to become part of it. Right now, RAND is part solid, part liquid, and part gas...' To which RAND is

infinitely more
 solid, less gaseous,
 and perhaps less
 liquid in cash."

Joe then
 announces his
 departure from
 RAND to accept a
 job at Yale
 University in the
 Office of the
 Provost. He
 continues:

"As I wonder how

I can possibly tell you why, one new reason occurs to me: Anyone who has invested so much of his joy, his energy, his blood, and his agony in this place, and then decides to leave, must be off his rocker. RAND should not consist of cracked pottery and since I must be nuts for deciding to leave, given my attachment to RAND, ergo, I don't belong here anymore."

Olaf Helmer
#18, page 6

“An Expensive Meal for Two”

from Rita McDermott

“Many moons ago, RAND had a Paris office. To see that it operated efficiently, two secretaries were sent to that office—Mary Yanokawa and Mildred Vukmanic. Both of these ladies had a real fondness for Mexican food. Way back when this office was opened, Paris did not have a Mexican restaurant. Hard to believe, but true. In one of Mary’s letters, she stated how hungry she was for the flavor of a Mexican dinner.

“One day when I and Mary Ryan were enjoying lunch at a Mexican restaurant in Santa Monica, a bright idea popped into my head. I said to Mary, ‘Why don’t we send Mary Yanokawa and Mildred some Mexican food?’ At first, Mary thought I had flipped out, but when I indicated how easy it would be, she saw the light. Yes, of course, it could be done. Enchilada, tacos, beans, rice, and maybe more were purchased ‘to go.’ A steaming hot package was taken to the icehouse on Barrington just south of Olympic (no longer there). The food was fast frozen and packed in dry ice.

“Now came the ticklish part of the plan. We knew that Olaf Helmer was leaving the next morning for Paris. (For those of you who do not remember Olaf, I will supply a brief description. Tall, ramrod stance, German accent, wore turtleneck shirts or sweaters. He looked like he belonged on a German U-boat.) [Editorial Note: You can see a picture of Olaf with Milt Weiner, the Association President, on the cover of the new, 50th anniversary issue of the *RAND Review*, Vol. 22, No. 1.]

Bob Holliday
Spring ‘94, pages 1, 6

My First Days at RAND, 1949

by Bob Holliday

Around Thanksgiving in 1948, my wife, Darlyne, showed me an article in the *Evening Outlook*. It was about a place called RAND, where they were studying exotic things like going to the moon. (Actually, RAND began as Project RAND at Douglas Aircraft and was focused on an Air Force project by the name of FEEDBACK, which dealt with how to build and deploy reconnaissance satellites.) At the time, I was looking forward to graduating as an engineer from USC, on the good old GI Bill. “I’ll go talk with them,” I said.

Within a few days, I was having an interview with Jack Clerk, administrative assistant for the Missiles Division, who had warned me that he frequently disappointed those who were late.

(see next page)

Holliday (cont'd)

Believe me, I was on time. Before long, I was talking with George Clement, assistant department head, and Stan Gendler, who was to be my group leader. Jimmy Lipp was department head at that time. That was the only job interview I had. RAND's mystique pushed all other possible employers into the background. I believe that, at the time of my interview, the RAND Corporation was only a month old.



Bob Holliday

RAND's mystique pushed all other possible employers into the background.

I began my career with RAND in February 1949 in an upstairs office across from the old *Evening Outlook* building at 4th and Broadway—RAND's first facility. I was in Pre-Clearance, waiting for my security clearance, which could take up to six months to come through. Stan Gendler gave me my first assignment—estimating the size and weight of future rocket propellant pumping systems for engines that had up to a million pounds of thrust. About all we had to go on was the V2 (or A4) German rocket, which had around 10,000 pounds of thrust as I recall—that, and some ideas from a division of North American Rockwell, later to become Rocketdyne. My salary was \$285 per month.

Pre-Clearance was an experience far removed from my B-17 pilot combat days and the hard work of becoming an engineer. A variety of people inhabited the area. There was Norman Dalke, philosopher-mathematician, who claimed he was one of only three people in the world who really understood Bertrand Russell's *Principia Mathematica*. I couldn't argue because I had never heard of that work, although, while stationed in England, I

had attended one of Russell's lectures at Cambridge—for sixpence. Then, there was a young mathematician, one of the first hippies, who had slept with his family in an old Buick until he landed a job.

Another young genius was overly playful—

he was the physicist who dangled a live crab from a third-floor window to astound a fellow scientist on the second floor. I'm not sure he survived Pre-Clearance.

It did take a few months, but I was finally cleared and moved into my office across the street, the one with my name on the frosted glass—in gold letters, no less. What a day that was!

Oliver Gross Winter '94, page 5

From Bob Specht

*Bob calls this "For Heaven's Sake, Oliver,
Can't You Ever Get Anything Right?"*

The first modern computer was the von Neumann–Goldstine machine. While the ILIAC, ENIAC, and UNIVAC already existed, loading programs on these machines was like standing in front of a giant telephone switchboard and plugging in cables. It was John von Neumann who conceived the idea of storing the program in the computer memory along with the data. The machine was named the JOHNIAC for Johnny's Original High Speed Numerical Integrator and Calculator. The first friendly computer language was JOSS, for JOHNIAC Open Shop System. The JOSS language was created by Cliff Shaw.

When Cliff was working on the language, Oliver Gross would come to Cliff's office each day to pick up what Cliff had produced. He would then try it out to find what he regarded as "defects." Then he would report these back to Cliff. Cliff got a bit tired of this continual fault-finding. He inserted a special instruction in the central memory of the JOHNIAC. Whenever a console operator logged on using the initials of Oliver Gross and made more than some number of typing mistakes (for Oliver was a lousy typist), the central computer would take control of Oliver's console and his screen would show the message "For Heaven's sake, Oliver, can't you ever get anything right?" And then the instruction would erase itself from memory. Oliver could spend the rest of the day duplicating the same conditions, but failing to get the same message.

Herman Kahn Winter 95, page 8

From Charles Carey

More about Herman Kahn as adapted from a letter from Charlie.

"RAND was an education. Each person was a learner, each a teacher."

Charlie describes his early association with Herman against the background of the fifties, "heavy with echoes of Soviet threats and the secret awareness of our own vulnerabilities." He recalls, "Herman was unmistakable in the crowded conference room. He was a very large man in every dimension and seemed to move in every direction at once, shuffling charts, trailing data sheets. He talked fast (normal x 3)...as he sputtered out the huge numbers of possible casualties....It was as if he had set off a string of firecrackers, with critics and questioners firing back like roman candles. The flashes of spontaneous humor released tensions and became a trademark of Herman's style."

Herman took his study on the road. His words came faster and his sermons grew longer, sometimes lasted six hours.

"It was a general requirement that 'briefings' taken outside RAND were to be committed to writing for purposes of record and security review. But Herman kept his expeditions labeled as 'discussions,' and no written version materialized." As time passed, some of his presentations were lasting three days! "To some outside of RAND, he was the Einstein of Cold War strategy; to others, its Norman Vincent Peale. In the corridors of RAND, he was more like some unpredictable whirlwind, gathering and spreading the spores of the continuous RAND dialog.

"So it was no surprise that when the semi-annual meeting of the top brass Military Advisory Group rolled around, General White, AF Chief, made it clear the Group expected to meet this Kahn fellow. And I think RAND management was more than a little apprehensive and curious about what Herman had been dispensing during his travels.

"The usual RAND briefing to the MAG was limited to half an hour max. Herman insisted he needed at least two hours. So he was scheduled for 50 minutes and backed up against the lunch period to be certain he would be stopped in time.

"One of my responsibilities was to summarize studies for the trustees' Secret-classified newsletter. Herman, up to this point, had escaped my grasp, so I now quietly plotted to record his talk for my task.

"At the appointed hour, the generals were assembled, the doors closed, and Herman launched amid flurries of charts. The generals seem mesmerized. And by their request, he ran well over the catered lunch break. When he stopped—a long silence. Then General White: 'Do we have copies of the report?'

"When V.P. Goldie called me to his office at the end of the day, I braced myself to meet the charge: unauthorized recording of the Secret meeting. Instead I was greeted with smiles. 'If you right away get the recording transcribed, stick in the punctuation, we can get the report to them—soon.'

"Three typists came in the next morning, Saturday. When Herman and I met Sunday, the stack of pages was waiting. An hour later, I was still leafing through, trying to pull meaning out of the tangle of word strings—trying to match what I thought I had heard with what I was trying to read. Herman appeared at the door. 'Did I really say this stuff? I can't understand it myself! How could they?'"

And so they started again. "Herman's broken phrasing, soaring hands, pools of silence, earnest entreaty, bombastic conviction, splatters of humor, were themselves a language that gave meaning to his words, but would not be captured on paper....So we buckled down to conventional ways, sitting at the same desk: outlining, tying words into phrases, phrases sentences, sometimes switching to controlled dictating; and finally to painful editing. Three days later, we had the first document of the 'study' and the rootstock of what was to evolve into the classic tome, *On Thermonuclear War*.

"After he left RAND, Herman founded the Hudson Institute and continued his unique and powerful style of presentation until the day he died.

"The lessons I learned at RAND about communications in the world of public policy have since helped me out many times. And I imagine Herman now, in the midst of his biggest presentation to his toughest audience yet."

Herman Kahn
Spring '94, page 1



KAHN YOU IDENTIFY US?—A PHOTO CONTEST The *Bulletin* has received a photo featuring Herman Kahn and showing three other former RANDites. The man on the far right with glasses has been identified as Ray Fulkerson. But we need help identifying the other two persons. Can you help? The winner(s) will receive our appreciation and a (as yet undetermined) prize.

Herman Kahn
Winter '94, page 5

From Bob Duis

Although I was employed by RAND in 1959, I went directly from my job at Edwards Air Force Base to the SHAPE Air Defense Technical Center in Holland. I had never met anyone from RAND until in 1960 I invited Herman Kahn to address the SHAPE officers on thermonuclear war. He spoke for three days, and I have always wondered if *any* of the European officers understood a word he said. (If you have ever heard Herman's machine-gun delivery, you will know what I mean.) But those of the officers who joined us for an Indonesian dinner after the presentation were certainly impressed with how he could eat.

Herman Kahn Winter '95, pages 7 & 8

From Vaughn Bornet

Adapted from Chapter XII, "An Idyllic Life: RAND and Santa Monica (1959-63) in Vaughn's book An Independent Scholar in Twentieth Century America: An Autobiography of Vaughn Davis Bornet (Bornet Books, P.O. Box 331, Talent, OR 97540). See the note from Vaughn regarding the special availability of his book to RANDites, in the "News and Views" section.

In late fall 1959, the notable RAND sensation was a Herman Kahn lecture series, delivered at home and abroad, on "The Nature and Purposes of Thermonuclear War." Although Kahn—trained in physics and mathematics—

tried to author a brief summarizing manuscript with that title, it was detoured to Vaughn as a "hopeless" expository effort. "Seeing in that a challenge, Bornet edited and virtually rewrote every line—far beyond the usual. Soon he could

reveal...that Kahn thought his 'a work of genius' that 'amounted to the role of collaborator.'"

Sometime later, Ed Lowe, a colleague at RAND, "happened" to observe that it was too bad that Kahn's two-day lecture series "could never be made into a book." Vaughn rose to the bait and observed, "I know that I can turn that stuff into a publishable book!" Soon there arrived a complete 6-to-8-inch pile of lecture transcripts that began five-and-a-half months of full-time work on "the Kahn Project." Because of the variety of material, sources, and views, the manuscript problem "was organizational, literary, helping the reader comprehend, diplomatic, and negotiating with a genius...to the end of getting him to allow tampering with his sacred words. Both Kahn and Bornet barely endured this inflicted ordeal."

From December 1959 to June 1960, solving the problems that arose became a full-time creative burden, although Vaughn had no trouble persuading Kahn to accept *On Thermonuclear War* as the definitive title. During this period, every word and paragraph had to be made intelligible to editor Vaughn so that it would be comprehensible to others. (Next to one paragraph he wrote, "Herman, I just don't understand any of this!")

The manuscript, ready for printing of galleys in early summer, was rushed into print. It had no index, so Vaughn and Taylor, another editor, went to work to produce one. When the second printing emerged with its 15-page index, Herman sent Vaughn a copy, writing in the front, "To Vaughn; This one has an index. The next printing will probably have a glossary. By number five or six, we ought to have a book. Herman." Vaughn notes that the tiny word "we" was especially gratifying, considering everything.

Herman Kahn
Winter '96, page 9

"And About Herman"

From Len Berkovitz

"I worked on Herman's Civil Defense Project, part of which he incorporated into his classic book *On Thermonuclear War*. I believe I am one of the few people ever to 'flap' the 'unflappable' Herman.

"In the course of a heated debate about something, I said, 'Herman, you will be known as the St. Paul of thermonuclear war.' When I saw that Herman was visibly disturbed by this possibility, I regretted my remark—but it was too late."

Herman Kahn
Fall 96, page 6

"The 'Unusual' Herman"

From Jane W. Larson

"Can't help adding my bit to Charles Carey's reminiscences about Herman Kahn [see the Winter 1995 issue of the *Alumni Bulletin*], for I was a technical reporter/editor at RAND in Santa Monica (under the name Jane Uffelman) when a tape became available from a Kahn briefing. I worked for Ernie Plesset, head of the Physics Division, as did Dr. Kahn at the time, and I remember so well the excitement when Herman Kahn would rush past my door to his own office down the hall from Dr. Plesset's with papers and tie flying. My job with the Kahn tape I was given was not so much to transcribe it as to get it ready for publication; I spent literally hours trying to make sense of some of the wording that I could hear and some of the indistinct indications of words that I had to invent. Later, when I was working in Washington, D.C., I loved the story of his airplane flight with his wife, when they were both reading the same book: He tore out the pages one by one as he finished reading in order to pass them over to her. None of the usual ways of doing applied to Herman Kahn."

Herman Kahn
Fall '96, page 6

"Two About Herman"

From George Brown

"First, there was a time, probably 1959 or 1961, when a then-unworldly Herman was much involved with shielding calculation and had a bright young woman assigned to him to help him get his work done. (I think I know who, but her name should be kept out of the story.) At one point, she was reduced to tears by Herman. I felt called upon to try to get him to be more considerate of her feelings. I'm afraid I used a somewhat sexist approach, telling him women were likely to be somewhat sensitive, so he should ease up a bit on the pressure. Apparently it worked.

"Second, about 25 years later. By now, Herman is well established as a famous author and the founder of the Hudson Institute. The only time I was ever in Hawaii, Myra and I were staying at a hotel on Maui. After dinner, we took a stroll around the hotel grounds and came upon a large dinner party, open to the outdoors. There was a speaker, and the familiar voice belonged to Herman Kahn. The tables were illuminated by small lamps with no other light except for a spot on Herman. He was having a rough time; no feedback from the audience, who probably had had drinks and a large meal before the speech. I sympathized with him, having had this happen to me. As we stood outside, Herman brought his speech to an uncomfortable close, with absolutely no reaction from the audience. Myra and I approached, and Herman suggested we meet in the hotel bar for a drink with him and Mrs. Kahn. Pleasant reminiscences, during which Herman recalled the occasion of the first anecdote. It seems I had really made an impression on him."

From Bob Specht

Before he came to RAND, Amrom Katz worked in photography for the Air Force and was in charge of photography at the H-bomb test blast on Bikini atoll. Bikini was filled with reporters and photographers from all over the world—all with nothing to do but wait and wait. Amrom decided to liven things up.

There was an air shuttle between Bikini and an airbase in the United States. Amrom sent a message to a friend, and shortly a package was delivered to Amrom on Bikini. In the middle of the night, Amrom and some friends opened the package. They took out two horseshoes and a number of packages wrapped in foil and stored in dry ice—so as not to give out a particular odor. They then went down the Bikini main drag—a dirt street and the only street on Bikini. Using the horseshoes, they made the marks of a horse going down the street. And every so often, they would open one of the packages and deposit its contents between the two lines of horse tracks. And then they went back to bed to wait for the reporters and photographers to discover a newsworthy event the next morning—newsworthy because there was no horse within thousands of miles of Bikini.

Tom Jones
#15, page 5

“Getting to Know Tom Jones”

from Marv Lavin

“I was hired by RAND in 1952 and assigned to the operations research group led by Norm Peterson and his deputy George Gompf. We were part of the Aircraft Department housed at 4th Street and Broadway above Vic Tanny’s original and smelly gym. The boss of the department was Gene Root, destined to become President of Lockheed Missiles. Gene was then renowned for his frequent trips to the Air Staff, where he would make commitments for ‘quick and dirty’ studies that would have the Aircraft Department working frantically for a week or two after his return.

Jones (cont’d)

“As a new employee, I observed that Gene had an assistant named Tom Jones, who seemed to be an administrative type. So, in my immaturity, I harbored a condescending feeling toward him. (Actually, Tom had come to RAND after teaching aeronautics in Brazil in Portuguese.)

“My view of Tom began to change when he joined with Dick Schamberg and Tom Kirkwood to perform a system study of the next generation of Air Force transport aircraft (as best I can remember). The results of the study were briefed nationally, with Tom [Jones] as the lead briefer.

“The upshot was that Tom became assistant to the President of Radioplane, located at the Van Nuys airport. In due course, Tom’s boss became head of Northrop, after the Air Force became disenchanted with the performance of Jack Northrop, who was said to have run his company like a hobby shop. Then, as the fates would have it, Tom’s boss died, but not before Tom had impressed the board of directors sufficiently to be named Northrop’s new leader. And so began a long career as one of the top executives in the aerospace industry.

“Over the long intervening years, whenever I felt my ego needed puncturing, I have reminded myself that I was once so crass that I looked down my nose at a man who became one of the industrial leaders of the nation.

“Several years ago, I read an in-depth article about Tom Jones in the *Los Angeles Times*, describing his success as a vintner on his estate, producing wine that carried a price tag of \$50 or more a bottle. Some retirement!”

Amrom Katz
#14, page 12

Awards to RANDites

Smithsonian Honor



AMROM KATZ, one of the fathers of space reconnaissance, passed away earlier this year. In May, the Smithsonian's Ripley Center held a symposium honoring him, in conjunction with the opening of the National Air and Space Museum's new exhibit entitled "The Space Race." The work of Amrom and his RAND colleagues led to the world's first space reconnaissance satellite in 1960 as part of Project CORONA. Between 1960 and 1972, more than 100 CORONA missions provided more than 800,000 reconnaissance photographs, affording the United States critical information during the Cold War intelligence competition with the former Soviet Union. But in one of Amrom's better-known comments, he cautioned against overconfidence—"We never found anything that's been successfully hidden."

In addition to military applications, the body of space reconnaissance work at RAND has provided the foundation for the video camera recorder (VCR) industry and improved weather forecasting, map making, natural resource management, and humanitarian relief after disasters.

Amrom Katz Winter 94, page 5

From Bob Specht

Bob calls this "When We're Briefed, We're Briefed"

Amrom Katz went to many peace meetings—the Pugwash meetings, as well as others. Once he went to a peace meeting in Accra, Ghana. The meeting, "World Without the Bomb," was hosted by Nkrumah. The meeting was attended by Russians, Poles, Czechs, British bishops, Willy Higginbotham from Oak Ridge, Amrom, and others. They were all gathered in the great ballroom waiting for Nkrumah to appear. When Nkrumah finally entered, the band struck up the music of Nkrumah's favorite composer and played "Old Black Joe." The band proceeded to play one Stephen Foster song after another and the Americans began singing with the band. Later, a Russian asked Amrom, "How is it you Americans know these national Ghanaian songs?" Amrom replied, "When we're briefed, we're briefed."

Jess Marcum
#25, pages 4, 5, 8, 9

On Jess Marcum—from
Shame: Confessions of the
Father of the Neutron Bomb
by Sam Cohen

"Sure, Sam, as soon as I get the
chance I'll check out your calculations."

*Jess Marcum, senior staff member,
the RAND Corporation.*

As you've gathered, there were some pretty bright and remarkable characters at RAND in its early years. One of them was Jess, one of the most non-Jewish Jews I've ever met; born and raised in Tennessee with a Southern accent thick enough to cut with a knife and the mannerisms of a farm boy who had just come in from plowing the south forty. He had been trained in mathematics and physics, and was extremely adept at both. His particular interest, however, was in using mathematical statistical theories, some of which he developed himself, to solve complicated physics problems. This called for an enormous amount of detailed calculations, using computers, which I was thoroughly incapable of doing.

At the beginning of his career, he had worked on new radar concepts, doing original work that got him an international reputation. Later on, at RAND, he

see next page

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(cont'd)

applied his mathematics to figuring out how nuclear radiation transports itself through various media and became the nation's leading authority on the subject. But don't go getting any ideas that his interest in calculating radiation effects stemmed from the same source as mine. Nothing could be further from the truth.

The truth was that he couldn't care less about the real world implications of his calculations, as compared with the intellectual challenge these calculations posed. When I asked him to verify my original primitive radiation calculations on the neutron bomb, his response "Sure" came partly out of our personal friendship but mainly because he was fascinated with the mathematics involved. At this juncture, no radiation expert had tackled such a uniquely different and complex problem and here was a real challenge to his ingenuity and genius. He was really worked up over the challenge, and proceeded to work out all the equations and put them in the form of a model for the computers to solve. As for the neutron bomb, or any other military matter, his interest at best was minimal, although his concern for his country's security couldn't have been higher. As for the results of his calculation checking mine, purely by luck (my luck) they coincided with mine, to an amazing degree of accuracy nobody, including me, would have predicted. The Bomb was now for real, scientifically demonstrably real.

So much for a scientist who backed me up on the neutron bomb, who happened to be my good friend but whose integrity refused to allow him to let friendship get in the way of honesty. Now let me turn to a couple of scientists representative of a great many more who attacked the neutron bomb, who were unmitigated crooks and liars, and sadly lacking intellectual integrity. Before doing so, however, you might be a bit curious to know more

about this character from Tennessee and how he happened to become interested in making radiation calculations.

One spring day in 1951, after having had my standard lunch, cheeseburger and buttermilk, with Jess at the Goody Goody drive-in in Santa Monica, something snapped in my mind. I decided to head off to Hollywood Park racetrack, which I did every so often, but rarely on working days. Never though, in going off to the track, had I invited Jess whose moral Tennessee upbringing held betting to be sinful and pernicious. This time, however, I asked him if he wanted to come along. Something snapped in his mind and he agreed, but only to watch. There definitely would be no betting. Off we went, leaving RAND to get along without us for an afternoon. Being probably the world's most permissive organization when it came to dealing with errant behavior on the part of its staff members, RAND couldn't have cared less.

We're at the track and I'm betting away and, to my utter amazement I'm winning. I couldn't make a losing bet. In the meantime, Jess is sitting next to me taking it all in until, after the fourth or fifth race, he couldn't stand it any longer. He had to make a bet, even if it went against the grain of his moral fiber. (Although he was no saint, he was one of the most moral guys I knew; incapable of lying, cheating, stealing, intellectually or monetarily, deceiving, whatever.) So he mustered up his courage and, probably expecting a lightning bolt to come out of nowhere and reduce him to ashes, in the next race he put down two bucks on the favorite to show. His two dollars turned into two dollars and twenty cents. He made equally conservative bets on the remaining races and won each time. When the afternoon was over I was maybe a hundred dollars richer and Jess maybe five or six. I was quite happy; he was hooked.

He now set about devising a system to beat the races, which involved getting data from years and years of the Daily Racing Form and, using his mathematical prowess, analyzing it and coming up with a new way of betting nobody ever before had figured out. (I once asked him to explain his system to me, not that I was capable of understanding it, but rather how to use it. He refused, saying he would take it to his grave. He did.) Trying to make a long story short, several months later he took leave of absence from RAND, headed for Las Vegas, checked into a cheap hotel room, and the next day began betting against the local bookies.

About a year later he became the first person in Las Vegas history to be barred from betting on the ponies; he had taken them to the cleaners. With that, God only knows how much richer, he had gotten his system out of his system and he returned to RAND to resume a respectable life. However, if he had gotten horse racing out of his system, this was not so for other forms of gambling. He had become addicted, but good, and for the rest of his life he struggled with his conscience over how much time to devote to his country's national security, to which he was totally devoted, and how much to spend at gambling, to which he was equally devoted. To Jess, gambling meant not so much

continued on page 8



Sam Cohen

Photos of Marshall and Cohen are from the 1950s.

see next page

(cont'd)

making money (in which he had little interest; he bought his clothes at Sears, ate at hamburger joints and cafeterias, and drove cars until they fell apart) but to prove to himself he could win. He hated to lose, which practically never happened.

To resolve this dilemma, Jess decided to retire while in his thirties, and spend part of his time consulting at RAND and the rest figuring out new systems for various gambling games. This not only involved applying his mathematical knowledge, but when required, inventing new mathematical techniques. From this came a new technique that was equally applicable to gambling and solving radiation problems, including radiation from the neutron bomb. This double life went on for decades until gambling got the best of him and he moved to Reno to die, and did.

Needless to say, in both the world of nuclear radiation and gambling Jess became a living legend. Even though you may be a scientific legend, unless you're an Einstein very few people know about you because very few people are interested in the kinds of things Jess did. However, if you're a gambling legend like Jess, there are countless gamblers, most of whom are compulsively unsuccessful, who dote on stories about guys like Jess. Whether you like it or not, and Jess had an extreme dislike for notoriety at any level, you're going to become famous, which happened to Jess, which had him cringing for fear that someone would recognize him and start pressuring him on how to bet. So famous did Jess become in gambling circles that other legends, such as Jimmy the Greek, sought his advice and counsel.

One guy who got to know Jess and sought his advice and counsel was someone you've never heard of. This was Al Glasco, who were he ever to have met Damon Runyon would have joined Nathan

Detroit in Runyan's stable of characters in and around the gambling world. Al knew his way around gambling about as well as Tip O'Neil knew his way around Congress. He knew everyone and anyone and was, and still is, a genius in his own right in advising casino owners how to run their operation. One casino owner he advised, a good personal friend, was Donald Trump.

One day, at Glasco's advice, Trump brought Jess to Atlantic City, at an obscenely high consultant rate, to get advice on how to deal with a filthy rich guy from Japan who had just beaten, at

baccarat, one of Trump's casinos to the tune of \$7 million. Trump was desperate to get his money back from this guy and put Jess in full charge. After hours and hours of studying his betting habits, Jess figured out that like many a compulsive gambler he was betting far more on the basis of his emotions than on his odds. Meaning that if you're going to be lucky you're going to be lucky; but unless you cheat, which the house was very carefully watching for, sooner or later you're going to lose your shirt. Which is why most casinos stay open and many guys who pick up their paycheck in Hoboken

see next page

(cont'd)

Friday afternoon go to Atlantic City and come back to Hoboken Sunday evening flat broke.

So now Jess sits down and makes some calculations based on the Japanese guy's quirky betting habits and tells Trump how he can get his money back and then some, where some \$12 million would be involved. If Trump accepted Jess's strategy, the odds would be five-to-one in his favor. "But suppose he's lucky and wins?", Trump, who's getting a little panicky, asks Jess. "If you're that afraid of losing with the odds so heavily in your favor, you shouldn't be in the gambling business," Jess replies. Trump caves in to Jess's admonition and the game starts.

It went on and on for about three days, practically non-stop, with poor Jess, in the habit of getting 9 or 10 hours of sleep regularly and getting really grouchy if he didn't, standing there quietly watching. Little did the crowd around the bacarat pit realize that this little gray-haired fellow not only knew more about gambling odds than anybody in town, or the country for that matter, but was the guy who had turned the neutron bomb concept into a reality. Naturally, or I wouldn't be relating this tale, Trump picked up \$12 million, Jess picked up his huge consultant fee, thousands and thousands of dollars, and headed back to Reno to die, in a \$20 a night hotel room.

One last Jess Marcum story, please. For this will give you even more insight into how this guy's mind worked than the Trump affair. This one has to do with Jess's money, not someone else's. Shortly after I introduced him to horse racing and he had figured out his system, he got up one morning, picked up the newspaper, turned to the sports section and on the racing page noticed a horse running in the feature race at Del Mar, a track just north of San Diego. Something seemed familiar about this horse. Jess got out all his charts, looked up its record and the

records of the other horses in the field, and made some quick calculations. Short of getting stuck in the starting gate or throwing the jockey, there seemed no way the horse could lose.

With that, he finished the rest of the paper, and his breakfast, called RAND to say he wouldn't be in that day, piddled around until the bank opened, went down to the bank and took out \$50,000 in cash (probably most of his account), drove down to the airport and got on a plane that shuttled between L.A. and Del Mar. For several races he either didn't bother to get up to bet, or bet two bucks on some horse that attracted his fancy. Comes the feature race, he goes up to the betting window and plunks down \$50,000 to show on the horse he had picked that morning.

Now in those days, California State law demanded that no payoff be less

than ten cents on the dollar. Jess's calculated odds on this horse were like a hundred to one it would come in the money. So from an odds standpoint he had a pretty good bet going, far better than what Trump had going against the Japanese guy.

Okay, they're off and running. Jess's horse, ahead from wire to wire, wins by god only knows how many lengths. Jess walks up to the pay window, picks up \$55,000, the same amount as if he'd bet to win, gets on the airplane, goes home, sticks the money under his mattress, and the next day deposits it in the bank. When he told me about it, I asked him what he would have done had he lost. He looked at me, shrugged his shoulders and told me what he would have told Trump: "That's what good gambling is all about; make good bets. If you don't know how to, don't." ♦

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Norm Peterson's Collection
#14, page 5
#15, pages 6 & 7

"A Collection of Memories"

From Norm Peterson

Not a Problem

"The late world-class mathematician, John von Neumann, was one of the original RAND trustees. One day, John Williams, then head of the Math Division, was chatting with the Great One. Williams said, 'For a little change of pace, we set ourselves the problem of finding the dimensions of a coin which would yield, when tossed, any of three results with equal probability: heads, tails, or standing on edge. We have finally solved the problem.

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 problem.

"Dr. von Neumann closed his eyes for a moment and then said: 'If the coin is symmetrical, balanced, and honestly tossed, the thickness should be ____ times the diameter.' (I do not recall the actual number and do not care to guess, but based on subsequent calculation the decimal figure quoted by von Neumann was *exactly correct*.)

"John Williams could only reply: 'Damn you!'"

Strangers

"In the early 1950s, when RAND was figuring out how to do interdisciplinary sys-

Peterson (cont'd)

tems analysis, Bill Graham (Engineering Division) decided that all the members of the team should be acquainted with each other. So one day, he took several of the *engineering types* to the other end of the building to meet some of the *economists*. He said: 'We don't want you folks to be just the by-line names of strangers when we get your papers, and, similarly, we don't want you to think of us as faceless strangers when you get our stuff.' Somebody, I think it was Alain Enthoven, replied: 'But even when we get to know you guys, you're strange.'"

LeMay's Dismay

"The first head of the RAND Aircraft Division was Gene Root. In the early 1950s, the Division had done a study of the tradeoffs of range, speed, carrying capacity, and operational altitude for jet-powered bombers. (Later on, this kind of work, embedded in systems analyses, led to the B-47 and the B-52.) One day, Gene was briefing this study to General Curtis LeMay and his senior staff, using charts mounted on large sheets of cardboard. LeMay was seated in the front row, right in front of the chart stand.

"Somehow, Gene tipped the chart stack and all the charts fell onto LeMay's lap. The room froze; all the officers were awaiting the cue from El Supremo. After a few painful seconds, LeMay laughed, and then the whole room laughed."

"A Collection of Memories"

(continued from Issue 14, Fall 1997)

from Norm Peterson

It's All a Game

"The Scientific Advisory Board to the Air Force Chief of Staff held one of its meetings in 1957 at a very fancy golf ranch near Phoenix. I was there with Fritz Sallagar to take part in a panel debate on the significance of Sputnik.

"On the lobby table was a glossy picture book of the rich and famous people who had patronized the establishment. On the cover was a photo of a person, let's call her Ms. Snooty van Snob, wearing an ermine wrap and gliding down the stairs on the arm of a fellow whose name should have been Sir Cedric Greasehair. They were about to dine with a prince or the equivalent.

"I asked Fritz, 'What do you suppose these incredibly wealthy uppercrusters do with their time when they are not gliding down the stairs to dine?'

"Fritz replied, 'They play pinochle.'"

Wayne White Spring '95, page 5

WAYNE WHITE writes from La Mesa, California, and encloses "something that might be of interest to . . . historians—a telephone list of RAND personnel dated March 1948, when RAND was Project RAND within the Douglas Aircraft Company and was sometimes called "Location G4," which referred to its scattered office spaces in downtown Santa Monica." What Wayne says he remembers most vividly was "the great intellectual fervor of being in a group of bright young people brought together and given wide latitude to find answers to the most challenging threats of the day. . . . We worked in an Idea Factory, reluctant to leave at five o'clock. . . . One group leader bought a cot to sleep on in his office, while his paychecks accumulated uncashed in a jar on his bookshelf. We worked

Ed Paxson

#19, page 7

"Unhookering"

from Norm Peterson

"In 1995, Ed Paxson and I attended a NATO conference in Germany on the issues of atmospheric testing and the tactical use of nuclear weapons. A lovely and fluent translator at the table gave me a come-on look. Ed said, 'Don't touch it *at all*. She is a professional hooker. Her job is to recruit spies. She will get you into bed for a flaming romance, then tomorrow she will show you some photos and ask if you would like them sent to RAND, or to HQ USAF, or to your wife.'

"Ed went on to say that if you ever commit an indiscretion, and they show you some photographs, you should say, 'Hey, those are great! Could I get three prints of this one, three of that one, and an enlargement of this one here?' That will turn them off."

White (cont'd)

hard and played hard." Wayne describes some of the practical joking that took place (see "RANDOM Tales"). He also describes some of his views in setting up a German "think tank" (also in "RANDOM Tales"). "After Germany, I decided it was time to retire and spend more time with my family and ended up building a home overlooking a lovely beach in Baja California. But our beach was gradually overrun with tourists, dune buggies, jet skis, paragliders, ultralights, whatever, and after twenty years we gave up and returned to California, where Hope and I now spend our time relaxing, traveling, and loosening our aging joints on the tennis court."

Nicholas Rescher Spring '96, page 7

"Quarantine"

From Nicholas Rescher

"When reporting to 1700 Main Street in May of 1954, I immediately came to realize that actually going to work was not going to be as easy as I thought. One could not even get into RAND's principal premises without a protective escort, and new employees who as yet lacked security clearances were exiled to a separate outer region called 'Quarantine.' This was located in a side corridor just off the main entrance hall whose principal door led into the RAND building proper. The building was then only a small fraction of its present size, and it housed only a fraction of the present work force.... There were few enough of us so that the security guards learned to recognize everyone and, to keep in practice, greeted them by name on arrival, which gave rather a small-town feeling to the place.

"The clearance period of some four to five weeks seemed interminable, and at the time I was impatient, though in retrospect came to view quarantine as a rite of passage that amounted to 'paying one's dues.' My roommate in the quarantine region was

another incoming
Mathematics
Division
researcher, who
regaled me with
tales of his
wartime service in
Alaska as an
operations analyst
for the Army Air
Force. However,
most of the time
was spent in
reading material

Rescher (cont'd)

in the mathematical theory of games, which was then central to the interests of RAND mathematicians—though as matters actually turned out, I never made the slightest use of it in connection with any of my work there.

"As my pre-clearance period moved into its third week, a young man named Fred Thomson dropped by to ask if I might be interested in working with his group on some economic issues related to air warfare that they were researching. This was the first time since my arrival that anyone had shown much interest in my presence. So I agreed with alacrity, feeling that this would be a great improvement on the rather boring inactivity that was currently my lot. A week or so later, my clearance came through and I was finally released from quarantine. Strange to say, I viewed myself as liberated and felt like a free man within the confines of a tightly guarded classified facility that was actually more of a fortress than a public building."

Gerhard Schilling #17, page 3

GARY MILLS writes from Grant's Pass, Oregon, with the note that he and Helene were sorry to hear about the passing of Gerhard Schilling. Gary "met Gerhard on a proposal meeting many years ago, and we lived in the same apartment building for several years. In the meeting, after hearing an optimistic description of funding prospects, Gerhard said quietly in his cultured ('Austrian, not German') accent, 'I belief it when I zee zhe contract.' In his quiet way, he seemed the modern embodiment of the description once given to economist Thorstein Veblen: 'the last man who knew everything.' After dinner one evening with a mutual friend, we got into a discussion of acoustics which resulted in Gerhard explaining why Porsche and VW engines can be so irritating—we think it was something called the 'fifth harmonic overtone.' In the years since, it's surprising how many times we've said, 'I belief it when I zee zhe contract' or '#\$*%@ fifth harmonic overtone.'"

John Williams
Fall 93, pages 1 & 6

"Where Is John Williams?"

by Robert D. Specht

John Williams was a great man. He was head of the RAND mathematics department and a world-renowned mathematician. I think it was Olaf Helmer who came up with the idea that RAND should have an Economics Division and a Social Science Division, but it was John who made it happen. This was important not only for RAND but beyond, for it created an example for other—you will forgive the expression—think tanks, which might otherwise have remained merely homes for tired engineers, mathematicians, and physicists.

It was also John who chose and persuaded Charles Hitch to be head of the Economics Division. Years later, Hitch left RAND to become Assistant Secretary of Defense



John Williams

(Comptroller), then President of the University of California, and, later, President of the foundation Resources for the Future.

When *Sports Illustrated* was about to begin publishing, it mocked up a dummy issue to show to potential advertisers. For one article in this issue, it used a paper John had written on television wrestling. This was at a time when televised wrestling was an important part of America's cultural heritage. The profession involved distinguished nobility. "Baron Leone" lived in Santa Monica, not far from RAND. "Lord Blears" lived in Pacific Palisades, at the end of my long block.

The *Saturday Evening Post* had a series of articles under the title "Adventures of the Mind." You will find these collected in two hardback volumes. They involved a distinguished set of authors, C.P. Snow and others. However, the best essay by far is John's "The Small World," which he wrote to present to a meeting of school teachers.

The mathematical theory of games was invented independently by John von Neumann and by a Russian whose name I have forgotten. However, much of the development of the theory was done at RAND. These developers decided that John should write a book about mathematical game theory for the reader who knows no mathematics.

So John wrote *The Compleat Strategyst* (with apologies to Izaak Walton), illustrated by cartoons. (The illustrator was a gamesman too, but in the Stephen Potter sense. But that's another story.) In the section on Russian Roulette, John could not resist the temptation to make a political joke. He wrote that if the Russians were to realize the advantages of choosing Russian Roulette as the official Party game, they would adopt it with pleasure and claim that they had invented the game.

(see next page)

Williams (cont'd)

In the French edition of *The Compleat Strategyst*, all this was censored out by the French lady translator. But in the Russian edition, as John says in the preface to his second edition, the Russians showed much more class. They renamed the game, made it "American Roulette," and everywhere that John had written "Russians" they wrote "Americans." They also changed one cartoon: instead of the original drawing of two Czarist soldiers in their high shakos, the Russian cartoon showed two GIs playing American Roulette. As John said, that's class.

One of John's passions was a hot-rodded Jaguar in which he hoped to set a new speed record. Unfortunately, someone beat him to it.

In 1969, Dave McGarvey and I came up with the idea of putting together a calendar that would never be confused with the RAND calendar. So I typed up *An Expectation of Days*, 1970, the first edition of a quadrennial series.

John von Neumann
#15, page 5

“Different Recollections”

from Marv Lavin

#1

“I believe Norm Peterson’s tale entitled “Strangers” has a minor flaw. It was set in the early 1950s. A quotation attributed to Alain Enthoven must have been spoken by another, because to the best of my recollection, Alain arrived at RAND in the late ’50s (after my return to RAND from Chicago in 1957). But I might be wrong.”

#2

“I have a somewhat different recollection of the John von Neumann-John Williams coin story that my first RAND boss, Norm Peterson, relates in the previous *Bulletin*. My aging brain holds that John Williams called a taxi for the gifted von Neumann. As they were leaving Williams’ office, he posed the problem: ‘What is the likelihood of a perfectly formed coin, tossed perfectly in the air, coming to rest standing on edge on a perfectly flat surface?’ By the time the two reached the taxi at the curb, von Neumann had the answer. Yes, John Williams then said, “Damn you!” Of course, I am suspicious of my recollection because the dimension of the coin, unspecified, must be relevant.”

John von Neumann
#15, page 5

“A Puzzling Tale”

from Arnold Kramish

“It was in the early post-war (WWII) era, on a RAND mission to Los Alamos, when assorted Hungarians such as [John] von Neumann, [Edward] Teller, Fred de Hoffman, etc., were gathered one evening in the flat of the extraordinary mathematician Stan Ulam. Naturally Stan, a Pole, was exchanging insults with the Hungarians. Von Neumann, from classy Buda, was insulting Teller (Ulam’s arch rival—and co-inventor of the H-bomb), from Pest, the other side of the tracks, so to speak—actually across the river.

“Not only insults were exchanged, but problem challenges, which everyone met, save one: Ulam asked von Neumann to visualize a chess board with two diagonally opposite squares cut out; then to take 31 dominoes, each the size of two chess squares, and cover the mutilated board with the 31 dominoes.

“Von Neumann agonized and sweated, eventually asking Ulam for a board and dominoes. (I shall not mention in a family-oriented publication a certain habit he practiced while thinking.) His foes smiled with glee while I sat by Johnny, myself in pain, witnessing the defeat of a hero. It was an historic moment. Finally, after over an hour, Johnny surrendered to Stan—and slouched in disgrace thereafter, even though his fellow Hungarians, professing to know the answer, did not volunteer it.

“Would John Williams have known—or do any *Alumni Bulletin* readers?”

"John Williams...on Organization Charts"

From Tracy Rumford

In a memo to the Mathematical Analysis Department, "DEPARTMENT APPOINTMENTS" dated 8/17/59, John Williams wrote:

"Any student of Mathematics Division organization—at best a dull subject—will have noticed that it comprises roughly two departments; roughly, because there is a trace of something called Red Wood. One department, Numerical Analysis, has enough organization to satisfy any enthusiast, while the other, Mathematical Analysis, gets its organization from a shrewd use of dictionary order.

"The Division has a Head (me), and a Deputy Head (Bob Specht). Bob also functions as Administrative Assistant; this role has more chores than the Deputy Head, but the title has been suppressed so he won't notice. We informally play the same roles in the Mathematical Analysis Department as in the Division.

"It has seemed to me for some years that the affairs of the Mathematical Analysis Department would be more soundly based if it had a Head who did not have more cosmic duties and who would not necessarily be disabled if Bob and I were disabled—after all, my Jag might stub its toe some night, and Bob is getting older every day. Actually, Bob got clobbered first: The Management Committee has made him responsible for Red Wood, which will reduce his duties in Division administration to the post of Deputy—and we have agreed that he will run to the fires only if I cannot.

John von Neumann #16, page 4

AL MADANSKY writes from the University of Chicago that "I can tell that I am getting old by my lack of recognition of a single name on the latest 'Whereabouts' list. I am writing, though, not to kvetch about my age but to respond to the Kramish challenge." (See Issue 15 of the *Alumni Bulletin* for ARNOLD KRAMISH's challenge and Issue 14 of the *Alumni Bulletin* for NORM PETERSON's anecdote about the problem posed to John von Neumann.)

"The key to the reason that Johnnie blew it is that his 'visualization' of the chess board was incomplete. He must have visualized it as a plain 8 x 8 matrix. In reality, it is a grid with alternating colors. Since the two diagonally opposite squares have the same color (something that an avid RAND *kriegspieler* would be able to conjure up in his 'visualization' of the board), the remaining squares would be 32 of one color and 30 of the other. Visualize each of the 31 dominoes as half red and half black. Then there's no way to match the dominoes with the board. I'm not sure whether John Williams would have figured this out, but Lloyd Shapley certainly would have."

"Selection of a Head for this particular department, Mathematical Analysis, is at once ridiculously easy and ridiculously difficult. It is exactly like the problem of a boy in a well-stocked candy store. I am happy to announce that Ted Harris has consented to let us put the bite on him. In order that this not be lethal, Ted in turn has put the bite on Ed Quade as Executive Assistant—a reasonable penalty for him to pay for readmission to this club."

Albert Wohlstetter #13, page 5

"Albert in Paris"

From Bob Holliday

"Albert Wohlstetter's passing reminded me of a happening in Paris, 1965. Our friends, Ed and Clare Drake, were renting actor Jean Pierre Aumont's house in Malmaison on the outskirts of Paris. It used to be one of the Empress Josephine's digs. Meanwhile, Albert and Jim Digby had been touring France, trying to eat at all of the five-star restaurants (sounds costly, doesn't it?). Anyway, we wound up taking Albert and Jim to Ed and Clare's place for dinner. The other guest was Count Chernov, a member of the Polish royalty who lived across the street in a huge white mansion. He was a real Daddy Warbucks, actually in the arms business, and his guards with submachine guns were evident outside. Ed had considerable aviation experience and was able to talk with Albert nonstop, as few people could. It was an evening I shall never forget."

Albert Wohlstetter Winter '96, page 6

"Gourmet Diners"

From Marv Lavin

"It happened in Washington. I was part of a briefing team. It was my good fortune to share dinner with three RAND devotees of fine food: Albert Wohlstetter, Herman Kahn, and Jim Digby. The venue was an excellent Oriental restaurant on F street, chosen (to the best of my knowledge) by Albert." Despite what was an outstanding meal, "two tasteful details are all that remain in my memory. The meal included a large whole fish, prepared Szechuan style. After it was consumed, the waiter chided us for not eating the head and tail, as any sensible Chinese would do. The dessert consisted of *fresh* lichee nuts direct from Florida. The proprietor explained that (in those days) the crop of lichee nuts was so small that they had to be rationed out to a select group of fine Oriental restaurants in the country."

John von Neumann #13, page 3

ARNOLD KRAMISH writes from Reston, Virginia, with a "rebuff" and a challenge.

"Shame on Norm Peterson for not recalling the John von Neumann solution to the tossed coin problem." (Norm's anecdote about the problem was in Issue 14, Fall 1997, of the *Alumni Bulletin*. The problem: the dimensions of a coin that would yield, when tossed, any of three results with equal probability: heads, tails, or standing on edge.)

Arnold also adds another von Neumann anecdote with a math problem, for which see the "RANDom Tales" section of this *Bulletin*. He continues, "I remember the solution for possibly the only problem that ever stumped 'The Great One,' but **let's see if any alumni can solve it.**"

John Williams Winter 95, pages 8 & 9

From Alex Mood (with additions from Willis Ware and Ray Cluett)

*Adapted from Alex's "Miscellaneous
Reminiscences"*

One of John Williams' activities "is omitted from the roster of RAND accomplishments. John loved fast automobiles, especially his Jaguar roadster. But why not make it faster? Why not double the horsepower by putting a Cadillac motor in it? Cadillac and Jaguar mechanics assured him it was impossible, but he was not easily separated from this captivating idea. After making some careful measurements of the motor and the car, he decided it could be done and that he would do it himself. RAND had a well-equipped machine shop; all he needed to do was make a shorter drive shaft, cut some new gears for a slightly smaller gear box, trim the clutch down a bit, reinforce the frame a bit and presto—the sizzlingest Jaguar in the world.

"There seemed to be no end of unforeseen difficulties and there were the usual beginner's errors on the machine tools, so that the project ended up taking about the equivalent of a year of full-time work in the machine shop. But he did it; proof of what stubborn and able individuals can do once they have set their mind to it!"

(from Willis and Ray)

The Jaguar "was chocolate brown, and it was a classic model that had an extremely long engine compartment in front of a stubby two-seat passenger compartment. John was interested in fast cars, and his first attempt to soup up the Jag was to ask McCulloch (a chainsaw manufacturer with a sideline in high-performance superchargers for racing cars) to put one of its units on the Jag. McC said that it could not be done, and then John, with the support of Ray Cluett, who ran the RAND mechanical shop facility, undertook the task.

"There was no room under the hood for the supercharger so a part of the chassis under the front fender was carved out to make space. The supercharger was driven by a belt from the engine. Initially, it was downstream from the

carburetor; it injected high-pressure air into the fuel-gas mixture. But later, it was put upstream of the carb—it injected high-pressure air into the throat of the carb. This meant that a pressure box had to be built to surround the carburetor because it was not designed to operate under super-atmospheric pressure. All of this work was done at Ray's house.

"The supercharger sensed pressure and via its built-in variable speed drive would adjust its speed to engine requirements.

"Some 2-3 years later, the original Jag engine was completely replaced by a Cadillac engine..." as described by Alex Mood.

Some nights, John would have trouble sleeping, and he would awaken wife Evie, and they would go for an early-hour speed run to Oxnard. On some of these, John would do acceleration tests, with Evie taking data with a stopwatch and homemade accelerometer. Later, a better accelerometer was built with a hanging weight and a calibrated scale to read deflection.

"There is an unconfirmed story that George Dietrich, who was a machinist for Ray in the RAND shop, was driving the Jag one night when its accelerator stuck, and the car careened off at high speed down Ocean Ave. in Santa Monica. Fortunately, a few kicks freed the pedal and no damage resulted."

III. The Projects

Cuba Missile Crisis
ICBMs and Southeast Asia
Johnniac Computer
Linear Programming
Numerical Analysis
Practical Jokes
RAND in Germany
Research in Vietnam
SAC Inventory
Software
Soviet Nuclear Capabilities
Sunshine
Systems Analysis
Tet 1978
Vietcong Motivation and Morale
Washington Office

Two Turning Points—And RAND Was There

By James Digby



Jim Digby

The imminent turn of the century makes us look back at the events that got us to our present state. I would nominate two major sets of events as dominant turning points in the cold war that was the major aspect of the last half of the 20th century.

The first was the Cuba missile crisis—an intense, dangerous few weeks in 1962 that brought us closer than we would like to remember to nuclear war. The second transpired over a longer period—the economic mastery of the West over the Soviet Union and the subsequent breakup of that nation and abandonment of many of its challenges to the United States and the West. Here I will note that RAND thought and RAND people helped our side safely negotiate the first, and emerge victorious in the second.

Many people, especially those not of age in 1962, do not realize how close the world was to nuclear war in that year. One stimulus for this note was the recent airing on the History Channel of several interviews with Soviet military leaders of that period. They had favored, as did Fidel Castro, using newly installed atomic armed ballistic missiles based in Cuba to force a U.S. backdown. (Fred Hoffman reminds me the TV producers selectively air the more extreme views—but these fellows still bother me.)

These new missile installations had been confirmed and located by a dar-

ing series of low-level reconnaissance sorties flown out of McDill AFB by a squadron of RF-101s led by LTC Clyde East (later at RAND). Over 100 missions were flown in about 14 days. The results were reported directly to President John F. Kennedy.

On the U.S. side, some military officers—and notably General Curtis E. LeMay—advised military action to force removal of the missiles; others, notably some naval leaders, preferred another way. On our side, it was President Kennedy who took a more moderate path; on their side, it was Chairman Nikita Khrushchev, the same man who had agreed to installing the missiles. But we can be grateful that he was a leader less dominated by the Soviet military than some who followed him.

RAND had carried out extensive studies of air defense, civil defense, and strategic forces during the 1950s. Secretary Robert S. McNamara had read these studies, grasped their importance, and received counsel from RAND alumni in government, including Charles Hitch, Harry Rowen, and Alain Enthoven. All were steeped in the inadequacies of our active defenses, the trivial nature of our civil defenses, and the very vulnerable state of SAC. In particular, Rowen—who received advice from Bill Kaufmann, Nathan Leites, and Andy Marshall—was right in the middle of the deliberations. (Incidentally, the Rowens' daughter Diana and our son Drew were born during the crisis.)

So the cautionary views prevailed with Kennedy, as they did with Khrushchev. As noted, on both sides some military

leaders wanted military action. But the civilian leaders chose a more moderate course—one consistent with RAND advice—and we came through that crisis. The cold war stayed cold. Albert Wohlstetter had a major regret, however: the United States agreed under the table to remove its recently installed Jupiter missiles from Turkey. Albert had opposed stationing the vulnerable IRBMs in Turkey but knew that unilaterally withdrawing them would be very offensive to our Turkish allies. It took years to heal that wound. Castro was also deeply hurt by Soviet removal of their IRBMs.

The second turning point was spread over several years. It was a combination of a failing economy in the Soviet Union and a falling apart of the political system that held the SU together. RAND people were involved—usually as observers and forecasters; the march of events had its own momentum.

In the late 1970s Fred Iklé's Defense Policy Board began theorizing about "Fault Lines in the Soviet Empire." Harry Rowen felt these ideas were important and proposed further attention and study. Thus in 1983 several of us, led by Albert Wohlstetter, began organizing a meeting of the European-American Workshop to discuss this. The Workshop had been started in 1975 after Uwe Nerlich, a German analyst, and Johan Jorgen Holst, a Norwegian later known for organizing the first effective Arab-Israeli negotiation, had approached Albert. Soon Harry Rowen, Tom Brown, Fred Hoffman, and I, joined by Nerlich, Holst, and other Europeans, were organizing

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(cont'd)

a new nonprofit to run these workshops.

I remember fondly the meeting on fault lines (dealing largely with political differences) in 1985 at the Grand Hotel du Cap on the Riviera with its good food and topless users of its beach club. But it was at the follow-up session in the much more austere windowless RAND conference room in Washington that the major impact of the trends in train became apparent: with the great U.S. economy, we could spend the Soviets into an economic tailspin. The political fault lines would become even more evident. Charlie Wolf had led a major study of "The Costs of Soviet Empire" that confirmed the problems. The continued U.S. development of the Star Wars proposal, which a committee chaired by Fred Hoffman advised DoD to take seriously, would be an area of competition where the United States had both a relative and an absolute advantage compared to a competition in the proliferation of ballistic missiles. Some of us concluded at the time that we could either push the Soviets over the edge or force them to back off.

They backed off. They split into political pieces, often at odds. The Russian military became economically starved and a relative shambles compared to the situation in 1975.

We may never know just how directly these arguments about fault lines and economic competition influenced President Ronald Reagan. But we do know that his instincts were exactly right for forcing a military and economic competition.

ICBMs and Southeast Asia Winter '96, pages 8 & 10

"Of ICBMs and Southeast Asia"
From Bob Holliday

Of ICBMs

"Back in 1950, there was a flurry of activity at RAND on the question of how to deploy ICBMs (intercontinental ballistic missiles). They were coming off the drawing boards, and the Air Force was alleged to be thinking of them as just another flock of birds to be parked on hardstands—dispersed and camouflaged perhaps—but a soft system vulnerable to atomic blasts. At RAND, we had some other ideas like putting them underground—very expensive, but almost invulnerable. Would this be cost-effective?

"The halls of RAND buzzed with ideas. Cost analysts collided with engineers, charts flew through the air, and Marchants and Fridens clanged away. Somehow it fell upon me, along with Jim Howard, to brief the Air Force detachment at Inglewood (which later became Air Research and Development Command).

"We found ourselves in an old church converted to office space. Stained glass windows still reflected the glory of the Cosmos, and it struck me as a grand piece of irony that we would be discussing ways to end the world, or to save it, in the sanctity of this old house of worship.

"The briefing was a big success. Hard systems won out over soft systems every time. As we warmed to our task and splattered billions on the blackboard, one could hear the thunder of giant rockets climbing and glinting in the sun, and one could smell the heady exhaust of liquid hydrogen and oxygen. When we had finished, we smiled benignly at the assembled officers. They smiled back, starting to evolve the hardened missile system in their own minds.

see next page

(cont'd)

"Meanwhile, I think we scared off every angel and cherub of that old church. It was a memorable and awesome experience."

Of Southeast Asia

"In October 1962, I went to Thailand to scout roads for a forthcoming study of road capacity in Southeast Asia. Mathematician John Green went with me although, as a championship bridge player, he was anxious to return in time for a tournament in Phoenix. But we had a lot in store for us.

"Through the auspices of ARPA (Advanced Research Projects Agency of the Department of Defense), I was given a Land Rover with a Thai driver, and John and I set out to explore all types of roads in Thailand. The monsoon season was barely over, and in one area the road was covered with water. John and I decided to walk a plank bridge, but the driver, faced with the task of getting the vehicle through, finally disconnected the fan and forded the water without difficulty.

"Another interesting event occurred in a small village called Nom Thai. Our driver arranged for us to sleep at the house of the local police chief. While it was a little unique to take a bath in front of Thai watchers, leaving your shorts on and sponging off with water from clay jugs, to their enjoyment, it was less enjoyable to try to sleep on the front porch armed with big knives since the chief was gone and there were bandits in the area. It was one of the worst night's sleep that we ever had.

"Then there was the time Gus Shubert and I crossed the river from Thailand into Laos. We were met and transported to the house of the local CIA chief. After a scotch or two, he realized that we were not the new agents he was expecting and had us transported to the embassy compound. That night, Gus and I went out for some beers and were transported to our quarters by some rickshaw runners. It was late and they looked very threatening, so I opened my Manila butterfly knife and held them off as we went into the compound. Quite a day!"

Johnniac Computer #18, page 3

PAUL BARAN emails that in September Paul Armer, Mort Bernstein, Bill Gunning, and Willis Ware gave talks on the history of the Johnniac at the Computer History Museum in Mountain View, California. The Computer History Museum is a division of the Computer Museum (in Boston) being set up in the Silicon Valley and focusing on the history of computers. At present, while it is raising money for a new building, the museum has borrowed facilities at Moffat Field in California. It has two temporary buildings next to the large dirigible hangar. One building is packed with historic old computers awaiting work by volunteers and permanent staff. The second building contains the computers that have been cleaned up for presentation. Standing near the front door of this building is the old Johnniac computer, named after John von Neumann, a former RAND consultant. The Johnniac was built and operated at RAND in the 1950s. The talks were given in front of the Johnniac and recounted the motivation for its construction and some of the amusing incidents in its operation during its long and successful career at RAND.

Linear Programming

#18, pages 15

#19, page 5

"On Linear Programming"

from Larry Hill

"[In explaining to] my students that linear programming does not refer to computer programming, I tell the class I will do better than tell them the difference, I will tell them how linear programming got its name.

"It seems that Richard Bellman was walking along the beach in Santa Monica (I tell them that it must have been his lunch hour) with another famous mathematician. At that time, Bellman's new development [had] a complicated five or so word title. The other mathematician said, 'Why don't you [just] call it linear programming?' That is how LP got its name, and I have narrated the story in class 30 or more times."

"He *Almost* Told the Tale Right"

from George Dantzig

This is "...my correction to Larry Hill's 'RANDOM Tale' that appeared in the Winter 1998 issue ('On Linear Programming'). I quote his story verbatim, correcting only the names of the cast of characters. The insertions appearing in []'s are mine:"

In explaining to my students that linear programming does not refer to computer programming, I tell the class I will do better than tell them the difference, I will tell them how linear programming got its name.

It seems that ~~Richard Bellman~~ [George Dantzig] was walking along the beach in Santa Monica [in 1948] (I tell them that it must have been his lunch hour) with ~~another~~ [a] famous mathematician [econo-

mist, Tjalling Koopmans, who later received the 1975 Nobel Prize in economics]. At that time, ~~Bellman's~~ [Dantzig's] new development had a complicated five-or-so-word title ["Programming in a Linear Structure"]. The ~~other mathematician~~ [economist] said, "Why not shorten it to linear programming?" That is how LP got its name and I have narrated the story in class 30 or more times.

George Dantzig continues: "Myths like Larry's are not uncommon. Bellman used to tell one about the time he was invited to an eastern university to receive a prize honoring his work. He stepped up to the program to receive his prize. It read for his discovery of *linear* programming. Bellman...is famous for his discovery of *dynamic* programming. What's the difference? I'll leave that to Larry to explain in some future issue of the *Bulletin*."

Numerical Analysis Summer '95, page

From Irwin Greenwald

Irwin sent us an anecdote dealing with the effort, prior to the H-bomb explosion at Eniwetok, to determine whether a chain reaction could occur. We have divided the story into two parts.

The 1952
Philadelphia Caper:
Part One

In 1952, Hal Brode of the Physics Department brought the Numerical Analysis Department (NAD) a problem that originated at the Atomic Energy Commission's Lawrence Livermore Radiation Lab. It was a set of differential equations to be programmed for the Univac I: The computations were to determine if the forthcoming explosion of the H-bomb at Eniwetok could result in a chain reaction. Don Madden and I, with numerical analysis support from Wes Melahn, were assigned to the project. None of us had ever seen a Univac; we were given a mimeographed copy of its instruction set. The computations were to be performed in Philadelphia at Remington Rand's plant. Because of the importance of the project, Don asked me to keep a diary of everything that happened, especially "customer" changes to the specifications. These occurred on an almost daily basis and Hal—an inveterate punster—used to leave messages on my blackboard with the latest word from "Kidneyless."

The first order of business was to determine if the dense space/time grid could be fit into the 1,000 words of memory that Univac had for both code and data. [Irwin continues with an account of the efforts to solve this problem, which are not described here.] Another problem we

had was to determine if our code was correct. We kept insisting that we needed hand-computed test cases, and Hal responded that the physicists would know whether or not the computational results "looked right" and plotted smoothly. Our argument that they ought to be able to tell us in advance what "looked right" meant fell on deaf ears. Finally, Hal provided us with some criteria of variable values that would indicate that an error had occurred; among these was the fact that energy could never go negative. We decided to type out (on

the Univac-attached typewriter) a profile of variable values at some time interval and a profile with a warning bell when one of the "error criteria" were violated.

To Be Continued...

In the next issue, the RAND team goes to Philadelphia, the warning bell sounds, energy goes negative, and Edward Teller reacts!

An interesting aside to our trip to Philadelphia.

While we were there, the 1952 election (Ike vs. Stephenson) took place. One of the Univac machines was being used to predict the outcome for TV, the first time this was ever done. A false console with slowed-down lights was rigged for the TV cameras, because the lights on the real console flashed so fast that they couldn't be seen. The computer model predicted an Ike landslide very early on, based on exit interviews, but the statisticians and TV network people refused to believe "the computer" so the announcement was delayed for hours.

Practical Jokes Summer '95, page

From W. B. White

In those early days at RAND, we worked hard and played hard. Practical jokes were the order of the day. Minds immersed in abstractions were blissfully unaware of physical events. Sliced rubber bands were mixed with pipe tobacco. Foot plaster replaced Swiss cheese; dog biscuits replaced cookies. Desks were given a slight tilt so that pencils rolled off onto the floor. The security guards were alerted to inspect a well-marked box of horse manure as its owner walked out at five o'clock in the company of a cluster of his coworkers. A fake telegram invited one of the aeronautical engineers to sit at L. Ron Hubbard's side at the grand Dianetics Convention to be held at the L.A. Shrine Auditorium. Some of the practical jokes were beyond the bounds of propriety—for example, time-fused firecrackers—but much of it was delightfully innocent, like the time that Phil Bahrman returned to his unoccupied office in Santa Monica after a long stint in the Pentagon, to find his office an impenetrable maze of cobwebs (manufactured by a cobweb generator borrowed from Warner Brothers Studios).

From Mario Juncosa

Bob Reinstedt had a hand in or may have masterminded a number of practical jokes. For example, it happened that for

mysterious reasons RAND seemed to interchange men's and women's restrooms rather frequently, particular favorites being the pair on the intersection of the 1300 and 1600 aisles. One such interchange was scheduled over a weekend, and Reinstedt knew about it. On Monday morning, there were a number of women who, entering the newly-converted-to-a-women's

restroom, got a surprise at seeing below a stall partition a pair of downed men's pants covering a pair of shoes. They quickly retreated and re-checked the sign on the door. After it became obvious that the man had been in there a rather long time, they alerted Gary Leon, RAND's

Chief of Security, who banged on the door and gave the man an ultimatum to come out within a few minutes. When there was no response, Gary went in. There, appropriately positioned, were a pair of shoes and a pair of pants whose legs hung down over a pair of upright 2x4's. It is not known whether the size of the "man's" shoes and those of Bob's shoes coincided!

From Bob Levine

Burt Klein, a well-known economist, was head of the RAND Economics Department for much of the 1960s. His mind was continually active, which may, in part, account for his reputed absent-mindedness, as well as his wanderlust tendencies. At one point in the middle of the decade, Burt went to the Pentagon to consult on economics and strategy at the highest levels of the Defense Department. The Department soon became aware of his wanderlust and assigned an officer to him who could keep up with him mentally as

well as physically. As the Colonel, a military intellectual who had also been a hero of the Normandy parapdrop, told the story, one afternoon Burt wandered out of his Pentagon office. As the Colonel walked with him toward E-ring's mahogany row, he asked Burt where he was going. Burt responded that he was going to see "whatsis name" and walked unannounced into one of the grandest offices. Which, the Colonel says, is how he got to meet the Deputy Assistant Secretary of Defense, Cy Vance.

RAND in Germany Spring '95, page

From W. B. White

Some time after the PPBS (Planning, Programming, and Budgeting System) was set up in the Defense Department, the German government asked for help in setting up similar systems in its Defense Ministry, together with a RAND-like think tank, proposed to be located in the city of Trier. To set up the "think tank," ZOR (Zentrale Operations Research), Robert McNamara offered them the services of five Americans. ZOR was given a five-story building overlooking the Mosel River, and was staffed with—what for the size of the German military budget was a major project—about a hundred bright young university graduates and a number of resident *Bundeswehr* officers. The Americans were taken by surprise to see some of the distinctions that existed among the Germans. Those holding two doctorates insisted on being called "*Doktor Doktor*"; those who had been through *Technische Hochschule* would not deign to operate a copy machine; a chauffeur could not be invited to an office party, etc. But the other side of the coin was that the Americans tended to do things committee style, and one military project might have offices scattered all over the country. In Germany, it was so satisfying to find projects managed by one man in one office, knowledgeable about every aspect of his project, who could make a decision on the spot.

Researcher in Vietnam Fall '96, pages 6, 7, 10

"A Researcher in Vietnam"

From Bob Holliday

Part 1: Experiences

"As a senior engineer with the RAND Corporation, I made four visits to South Vietnam during the period 1962–1968. The first was to give a briefing on my road-capacity project to U.S. 'advisors' in Saigon. There were few signs of war in Saigon then, and the general effect was that of beautiful Vietnamese girls strolling languorously past the pools and fountains of this Paris of the East. Each time I returned, the war became more visible. On one trip, I studied Vietcong logistics, tracking a VC battalion all over the countryside by means of intelligence reports stored on a large, computerized microfilm machine. A VC soldier could get along with very little—a bowl, a length of rope, a rifle, and a tarp to sleep on. He could obtain rice and ammunition from the villages and use a multitude of hidden trails to move south. Some VC carried supplies on foot; others on bicycles or even elephants. This logistics system did not depend on roads, was flexible, and was extremely hard to defeat. The CIA was interested in that study and came to RAND's Washington office to obtain a copy.

"My most important visit to Saigon was for two months in 1967 when I worked in Deputy Ambassador William Porter's office along with Dick Rainey of RAND. We stayed at one of the embassy residences with two other visitors and a staff of servants. Every morning, a quiet Vietnamese driver would drive us to the U.S. Embassy in a black Plymouth sedan with white seat covers. He was careful to take a different route each day. One of my jobs was to spend two weeks evaluating the security of the port of Saigon. This gave me access to some unsettling facts:

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- "The Vietnamese officer in charge of port security was a nephew of the Premier. He was very polite and answered all my questions, often in French. It turned out later that, at night, he headed up a band of pirates who cruised the harbor and stole valuable items like typewriters from U.S. ships, with the help of Vietnamese on board.
- "I was given access to a CIA memo that had previously been known only to Ambassador Lodge, Deputy Ambassador Porter, and General Westmoreland. This memo said, in effect, 'It is not our responsibility to report on U.S. activities, but we have observed U.S. officers diverting items such as refrigerators to the black market.'
- "Another secret memo stated that Saigon customs officials were being bribed to allow ammunition on barges from Cambodia to get through to the Vietcong. I stationed myself at one of the checkpoints along the river and witnessed cursory inspections of civilian river craft. Almost anything could have been smuggled through.
- "U.S. Army trucks were being hijacked if they carried valuable items.

"At Mr. Porter's request, I wrote a memo for his signature requesting that certain reforms be made to stop this corruption and violation of port security. He signed it, and it was sent to key members of the 'country team.' Soon after, I was called on to meet with angry officials who resented my 'interference' and refused to comply with the memo (Mr. Porter was leaving anyway). Mr. MacDonald, the man in charge of U.S. economic aid, was especially dramatic: He tore his copy of my memo into pieces and threw them all over

his office. 'There, that is what I think of your stupid memo.' I was in a difficult position, having made the study and written the memo, but being a consultant to Mr. Porter without any official status.

"Later, in Washington, I briefed President Johnson's assistant, Robert Komer, on my findings. He had requested the study in the first place. 'Fine, Bob,' he said, 'now when are you going back to implement it?' I made excuses because I knew there was no use in my going back to Saigon without any authority to enforce changes that nobody wanted. But that is how mixed up things were in 1967.

"Mr. Komer was in charge of the pacification program that I had been studying. Each village or area was evaluated according to certain criteria to see if it was under Vietcong or SVN control. The trouble was, areas under SVN control during the daytime often belonged to the VC at night. We saw this firsthand when we visited a project run by an Australian engineer to bring more water to a village. He drove us through a supposedly pacified area at breakneck speed, explaining later that there might be land mines

in the roadway and, if we went fast, the VC would touch his wires together too late and the explosion would be behind us! At one of the stops on that trip, I saw a map on the wall showing our route to be

dangerous after 5 p.m. It was then 4 p.m. I said, 'Hey, let's get outta here,' and we did. One RAND analyst in our car had a 'grease gun' that he emptied into clumps of bamboo along the way, just in case they were inhabited by enemies. At times, it was hard to tell researchers from adventurers.

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"On another occasion, I visited a warehouse full of bulgur wheat provided by U.S. aid. Nobody liked it, so there it sat. In a similar vein, in Vientiane, Laos, there was a huge concrete monument to the Prince made of U.S. materials intended for highway construction."

Part 2: Observations

"Here are several personal observations that threw light on our involvement in South Vietnam:

- "A bar in Saigon. A U.S. Marine was sobbing over about a dozen empty shot glasses. 'I killed three kids,' he moaned. It seems that earlier that day, he had been the gunner on a jeep with a large recoil-less weapon meant for tank-busting. He spotted some armed Vietcong about to attack his unit and did what he had to do—fired in their direction. In the process, he killed some civilian children. He was barely more than a kid himself and, a few months before, he might have been attending Sunday school in Kansas, never dreaming of horrors to come. Vietnam was very hard on a lot of young Americans.
- "Dick Rainey and I were entertained by a coalition of Vietnamese who claimed to be united for the 'just cause' of peace. We were supposed to convey this word to the U.S. government. After I returned to Santa Monica, I was advised to call Ed Lansdale, then in Virginia, and ask him about this contact. He said that there were at least 40 such coalitions in South Vietnam and that the claims of this group should be ignored.
- "A barbershop in Saigon. The lieutenant colonel was angry because he could not elicit the full cost of a proposed haircut and shampoo from the barber (all costs were posted on the wall). 'These slope-heads,' he advised me, 'will take you for all you're worth.' Other officers of similar rank seemed concerned mainly with the promotions they would get because of being assigned to South Vietnam. Sometimes racism and a desire for personal advancement came before U.S. objectives.

- "Dick and I helicoptered to the town of My Tho, just south of Saigon, to talk to the CIA agent there. His house had a sign on it—some euphemism like 'Village Economic Center.' His real job was to hire and organize young toughs to go out at night and assassinate village chiefs and others who were known to sympathize with the enemy. This was called Project Phoenix and extended all across South Vietnam. While we were having after-dinner drinks, there were some loud explosions nearby. We all took cover. The CIA man began to sob, screaming, 'Why am I here?' The explosions turned out to be our own howitzers a block away.

"Dick Rainey was still assigned in Saigon when the Tet Offensive took place in February 1968. Our former driver turned out to be a Vietcong sympathizer who was killed while helping the enemy during the attack on our embassy. Unfortunately, Dick died several years ago. He was a good friend and mentor.

"My last Vietnam project was organizing and chairing a seminar in Honolulu on pacification during February 1969. We invited representatives from both civilian and military agencies in Vietnam. Colleague Russ Rhyne was invaluable at this seminar. What came through clearly was that the civilian and military people had entirely different concepts of what was going on and that this gap could probably never be closed. Our final recommendation was to engineer a phased withdrawal from the area. A representative of the new Nixon White House attended.

"**Postscript:** In 1969, I was among some Western Airlines executives invited to a dark room in a nearby motel to hear the father of the H-Bomb, Dr. Edward Teller, speak for President Nixon in explaining the reasons for U.S. operations in Cambodia. He was accompanied by two sinister gray-suit types, who suggested that college campuses be surrounded by barbed wire because of active resistance to the Vietnam conflict and that machine guns be used if necessary. I tried to explain the corrupt situation in Vietnam and the futility of the war in general, having just returned from my pacification seminar in Hawaii, but this dedicated team would not listen."

SAC Inventory Fall '96, page 10

"Another RAND 'First'"

From John Postley

"While at RAND, I was responsible for a 'first.' Under my direction, the Logistics Data Processing Group, with the assistance of the Computer Science Department, actually developed the world-wide inventory system for the B-52 and KC-135 weapons systems. Based at Tinker AFB, this involved inventory at 52 SAC bases around the world, to any of which we had access in, for then, an amazing three minutes. This was accomplished through the use of a unique device, built by IBM to our specifications, which connected RAMAC units to an IBM 705 with a full complement of tapes, all operating as one machine. Quite a monster, but it was then the only random access machine available anywhere. We also guided the development of a similar, but not world-wide, inventory system for the Atlas missile at March AFB. Both of these were not just studies; they were actual systems used by the Air Force to manage the inventories."

Soviet Nuclear Capabilities #13, page 3

ARNOLD KRAMISH writes from Reston, Virginia, with some impressions obtained at the Dubna, Russia, conference on the "History of the Soviet Atomic Project" (1940s and '50s). The conference was attended by several hundred Russians and a few dozen invited visitors, who included Arnold and three other Americans. The conference included

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Software #23, page 15

Software and RAND

When John Tukey died at age 85 on July 26, 2000, his obituaries in both the *New York Times* and the *Los Angeles Times* noted that in 1958 he coined the word *software* to designate the programs used by electronic computers. Actually, there was an earlier use of the term, which Tukey, a longtime RAND consultant and good friend of John Williams, may or may not have known about. At RAND in the early 1950s, we used *hardware* to designate the work of the Aircraft, Physics, Electronics, and Missiles Divisions and we used *software* for the Economics and Social Science Divisions. Mathematics was in a class of its own.

information on the
Soviet leaders,
designers, and
technical staff
involved in Soviet
nuclear
developments, as
well as the some of the

history, intelligence and security, and weapon design and test events. Of particular note, according to Arnold, was the motivation of the Russian nuclear community, which was influenced by the lack of intelligence about foreign, particularly U.S., efforts. A more detailed description of the conference activities is available in an article entitled "Trinity at Dubna" by Thomas Reed and Arnold in the November 1996 issue of *Physics Today*. And an earlier description of the conference was published in the October 28, 1996, issue of *Business Week*. Arnold also reports that his 1959 RAND book was originally translated for security-cleared Soviet scientists, but for the Dubna conference, a chapter from the book "was made part of the official history of the Soviet program because, as they said, it was so accurate."

Sunshine Winter '94, page

From Arnold Kramish

About two years into Project "Sunshine," I became alarmed at some of the global fallout levels (to which the Soviets were generously contributing). I took this concern to AEC Commissioner Bill Libby and suggested that we should have some talks with the Soviets about the situation. He exploded! Calming down a bit, he called Chairman Lewis Strauss and said Kramish had a "real nutty idea." The line almost sizzled and I was commanded to Strauss' office for a dressing-down for subversively suggesting "talking to Communists." But, after hearing my arguments, Strauss gave me the go-ahead, which led to the involvement of the President's Science Advisory Committee, the State Department, etc. The result was that the United Nations Radiation Committee was created. Ultimately, "Sunshine" can be said to be the progenitor of the Atmospheric Test Ban.

Systems Analysis #13, page 5

"S is for System"

From Charles Carey

"IN THE BEGINNING WAS THE WORD.

"And the Word was...

"System.' The first thing that struck me when I joined RAND some 45 years ago was the ubiquity of the 'S' word. 'System' and 'system analysis' rang down the corridors and seemed to tangle in every conversation.

"Ed Barlow's massive Air Defense Study was under full steam. Albert Wohlstetter's Base Study was just getting under way, and

Herman Kahn was about to become pregnant with his Civil Defense Study.

"Progress-Report briefings before the Management Committee were verbal battlefields with critiques and questions flying like spears. 'You left out the critical variable!! How did you allow for weather? Wrong C.E.P.! According to game theory, your model should...'

"The troops and the guests in the room might be from almost any field you could think of. Mortal wounds were struck against logic and data, but the meetings were usually garnished with plenty of humor. It was these sessions that strengthened the studies for the rigors of the 'road shows' to come.

"Systems thinking traces back to the first woman when she looked upon a root and felt hunger and sensed a relationship. And of course the Greeks had a word for it (syn, 'together' and histemi, 'set up'). The terms 'Global Village,' 'Spaceship Earth,' 'Ecosphere,' and 'One World' are recent buds that the systems logic of the global economics, population growth, and communications technology are forcing to bloom, cracking political bastions and traditions in the process.

"Today it seems fashionable to use 'system' to describe everything from safety pins to family therapy. Unfortunately, the term is used to inflate and to deceive rather than to enlighten. 'System' is as much a warning label as a certification, if there is not the careful attention to question definition, model design, data input, validity testing, interpretation, and application that RAND has tried to achieve.

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"In conclusion:

*Our unending search for the 'system'
False ideas? It may help to resist 'em
But with brains and no soul
We will fail in our goal
True Answers? We'll surely have missed 'em!*

*It's a matter of optimization.
And results can be quite a sensation
Numbers in! Numbers out!
Is that what it's all about?
But to truth—what's the relation?*

*It's a tool we've been given. Let's use it
But be careful not to abuse it
Is it real? Or a lie?
Or just tech-alibi?
To cover our A's—and excuse it?*

*Will SA lead us someday to find
The Great 'Out There' System Mind?
We'll just do our best
With data and test
And try to be
honest and
kind!"*



Tet 1968
#18, pages 5 & 6

“TET 1968”

from Victor Croizat (as promised in Issue 16)

“The Vietnamese New Year of 1968 was a memorable event, particularly when viewed from the RAND villa in central Saigon. Yet, the passage of three decades has blurred the images of the drama and, lacking a written diary, only imperfect recollections remain. Here are a few.

“At the end of 1967, RAND was engaged in a DoD-sponsored study to identify motivational factors through in-depth interrogations of Vietnamese prisoners. Two teams had been organized for the work and an office established in a villa not far from the Saigon Cathedral and the American Embassy. I had just gone out as office manager and was taking advantage of the holiday period to familiarize myself with the project and renew old friendships.

“I had first come to Saigon as a Marine Corps officer in August 1954, just before the Indochina War had ended. The city then had appeared unexpectedly calm. Trees shaded its boulevards, flowers colored its gardens, the French military presence was little evident, and the siesta was respected. By the time of my last visit as a Marine in January 1966, all this had changed. Saigon had become a city teeming with people in perpetual motion, suffocating in blue clouds of motor-scooter exhaust. The American military were everywhere, but the trees and flowers were much reduced.

“I had been distressed to find, upon my return for RAND, that things had worsened. Saigon had lost all appeal, and the light at the end of the tunnel that marked our involvement in Vietnam’s fortunes was difficult to find. That had been the subject of the dinner conversation the evening of 31 January 1968 at the senior officers mess, where I had joined Colonel Joe Donahoe, an old friend serving as General Westmoreland’s deputy public affairs officer. I recall timing my farewells to reach the RAND villa before the midnight curfew. The drive through the empty streets revealed nothing beyond the usual patrols and wire barricades. All was calm and routine; there had been no comments at dinner to suggest it might be otherwise.

“Sometime after midnight, the imperative sounds of battle at close quarters shattered my sleep. I scooped up the M-16 under my bed and made my way through the dark, empty house trying to figure out what was happening. Finally, I discovered that by standing on the seat of the upstairs toilet, I could see our Embassy through high windows...and there I stayed, a witness to the vicious firefight for its possession. It was a most unpleasant night and the harbinger of many more to come.

Vietcong Motivation and Morale
Summer '94, pages 1 & 6

Viet Cong Motivation and Morale

The following excerpt is from the book Saigon Dreaming: Recollections of Indochina Days, by Tela Zasloff, published by St. Martin's Press, New York, N.Y., 1990. Tela and her husband, Joe, went to Vietnam in 1964. In the book, she reminisces about their time there, over a quarter of a century later.

A minister under South Vietnamese President Ngo Dinh Diem was the first to apply the term *Viet Cong*, Vietnamese Communist, to the Vietnamese revolutionaries, in order to cast opprobrium on their movement. The Americans retained the term, following the lead of the British in the Malaysian war of 1960, when they labeled the Chinese insurgents CTs, for Communist Terrorists. In 1964, both South Vietnamese and American officials seemed to believe that the Viet Cong were an ill-disciplined band of terrorists and kidnapers of young boys whose hit-and-run tactics had no appeal to the peasantry. A common saying among the Saigon bourgeoisie about the peasants was *Il ne veut que son petit lopin de terre et qu'on lui*



SAIGON 1964 A team of RAND analysts, developing interview data never before collected, provided one of the first accurate—and disconcerting—pictures of the Communist movement in Vietnam. Here, the team and friends enjoy a lighter moment. From left to right: David Morell; David Elliot; Guy Pauker; Mai Elliot; Author Tela Zasloff; Joe Zasloff; Susan Morell; John Donnell.

see next page

(cont'd)

fiche la paix. (He just wants his little plot of land and to be left in peace.)

The goal of the RAND project that took us to Saigon was to develop a realistic picture of the Viet Cong, particularly the motivation behind the movement. The research team consisted of two American directors and about twenty Vietnamese interviewers, plus a staff of Vietnamese and Americans who typed, translated, and compiled. All these people moved constantly in and out of our house, most of which had been converted to offices.

Discouraging Words

The team developed a set of interviews never before collected—of Viet Cong prisoners and defectors—that gave a disconcerting picture of the Communist movement. It found that the Viet Cong were formidable—a highly politicized and well-organized group that had seized the nationalist cause and was successful in recruiting and propagandizing among the peasantry. A State Department official later commented that these interview data were like the first reports of the structure and motivation of the Chinese Communist movement that came out in the 1940s.

The project team traveled throughout South Vietnam to get samples of different areas and layers of the Communist movement. There were the southern Viet Minh soldiers who were sent to the North after the 1954 Geneva Conference and, beginning in late 1959, were infiltrated back south through the Ho Chi Minh Trail; there were those cadres who stayed in the South after 1954 and the new members whom they recruited; and there were ethnic Northerners who by 1964 were ordered to the South to prepare for the “general uprising.”

Upon completion of their study in Saigon in December 1964, the American directors of the project briefed General Westmoreland, the U.S. Embassy country team headed by Ambassador Taylor, and Vietnamese officials. When they returned to Washington, they briefed Assistant

Secretary of Defense McNamara and the head of the Vietnam Working Group at the State Department.

Convergent Findings

Their conclusions paralleled the CIA assessment at the end of 1964—as revealed in *The Pentagon Papers*: the Communists were getting stronger and Saigon weaker. The CIA advised that if current trends continued and there were no significant

The project was to develop a realistic picture of Viet Cong motivation.

increases in U.S. forces, the Communists might win in 1965.

The revolutionary attitude of the Viet Cong interviewees from the project was summed up by this Southern cadre who was captured in May 1964:

From 1957 to 1960, the cadres who had remained in the South had almost all been arrested. Only one or two cadres were left for every four or five villages. What was amazing was how these one or two cadres started the movement so well. If at that time the government in the South had been a good one, if it had not been dictatorial, if the agrarian reforms had worked, if it had established control at the village level, then launching the movement would have been difficult. We succeeded, not because these cadres were exceptionally gifted but because the people were ready for rebellion. The people were like a mound of straw, ready to be ignited.

Two months after Tela Zasloff and her husband returned to the United States, the first U.S. combat forces arrived in Vietnam.

Washington Office
Fall '96, pages 1, 14, 15

RAND: On the Move

In July, RAND's Washington office moved into its new home at 1333 H Street, N.W., Washington, D.C. (See picture.) The approximately 150 staff members and consultants of the Washington research staff, Washington Support Operations, and the Critical Technologies Institute (CTI) occupy part of floor 8 and all of floors 9, 10, and 11 of the building.

This is the fifth location occupied by RAND since it has been in Washington. RAND's "occupation" of Washington started in the (then) Medical Science



1333 H Street, N.W.: RAND's new location in Washington.

Building on Vermont Avenue and L Street. As Phill Davison (with some help from Alex George and Joe Goldsen) recalled in the Winter 1995 issue of the *Alumni Bulletin*:

"When RAND's Social Science Division was formed in June 1948, the only space that could be found for its Washington

recruits was in a corner of the Douglas Aircraft Company's large conference room. Three or four members of the new division sat there for several days, filling out security forms and writing preliminary outlines for research projects.

"The Douglas Company rented a suite for us in the Medical Science Building on Vermont Avenue at L Street. As I remember, six researchers moved in: Alex George, Herb Goldhamer, Paul Kecskemeti, Renzo

see next page

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Sereno, myself and, of course, the Division Chief, Hans Speier.

"If RAND prided itself on having quaint quarters in Santa Monica, the Washington office could claim equal distinction. Our suite was the fourth floor of a structure in the advanced stages of dilapidation. On the ground floor was an old-fashioned drug store with a lunch counter from which the aroma of hamburgers and french fries drifted up. A sign on the store window proclaimed *All our eggs cooked in butter*.

"When Joe Goldsen came to Washington from RAND's California headquarters, he observed that the only real medical science in our building was the work of Herb Goldhamer, who was then writing a report on the relationship between urbanization and mental disease, which was later published as RAND's first book. Actually, there were a few M.D.s practicing at the Vermont Avenue address, but most of our neighbors seemed to be down-at-the-heels lobbyists.



AND THIS IS YOUR NEW HOME. Yogi Ianiero to Linda Tanner.

"Joe may have had something to say about security and recordkeeping, too. There was a back door to the suite, and we all had keys to it. Since the coffeemaker was just inside the back door, most of us entered that way in the morning, picking up a cup of Java on the way to our desks. Mail (most of it from Santa Monica) was delivered through a slot in the front door, and the first person to arrive in the morning usually gathered it from the floor, extracted items that looked interesting, and left the remainder on a table outside Hans Speier's office.

"All this changed when Lucille Gibbons (later Lucille Goldsen) arrived as office manager. The back door was sealed; people and mail were logged in at the front door. An office-wide filing system was established. All sensitive papers were locked in filing cabinets in a secure room when not in use. No longer could staff members float in and out unobserved, leaving scraps of paper on their desks saying: 'Gone to Library of Congress,' or 'In Pentagon this afternoon.'

As Joe Goldsen remembers (see the *Alumni Bulletin Supplement* of Issue 10), the status of the staff in Washington was a top-level discussion topic:

"One day Frank [Collbohm, RAND's first President] invited a few RAND newcomers for lunch aboard his newly acquired boat.... But lunch, despite its nautical setting, was focused on RAND issues—in a relaxed and leisurely manner. I was steering into a discussion of how social science at RAND could best function in two widely dispersed locales—'here' in Santa Monica and 'there' in Washington.

see next page

(cont'd)

"Frank wanted us all to be in close contact and to make do with the phone, telegraph, and frequent visits. Those of us in the social sciences felt it important to be in Washington for access to policy agencies, personnel, and data.

"We 'compromised': We would do lots of traveling between the coasts and most of our staff—but not all—would remain in Washington, keep in close touch by travel and telephone, and we would beef up not one, but both staffs."

After a year in the Medical Science Building, the Washington office moved to the basement of the new Cafritz Building on I Street. RAND occupied the basement—generally quite acceptable because it was air-conditioned cold—and part of an upper floor. By this time, the Social Science Division had grown to 15 or 20 researchers and perhaps a dozen secretaries and editors. An administrative section and several economists had also moved in.

As Phill Davison recalls: "Each researcher had a windowless cubicle. RAND Vice President Larry Henderson's huge office was reminiscent of the main burial chamber in the Pyramid of Cheops, and the typing pool plus library occupied a space near the elevator that was bathed in intense neon light and adorned with works of art by ancient and modern masters. These



Among the events at 2100 M Street was a gathering of alumni.

see next page

Washington Management



Larry Henderson
1948-1970



George Tanham
1970-1981



Paul Hill
1981-1987



Bob Roll
1987-1993



David Chu
1994-

quarters were modern and spacious, but still unconventional enough to occasion a bit of gossip. I remember hearing a pundit at a Washington cocktail party remark that the Cold War must be heating up because the RAND Corporation had moved its entire Washington staff underground."

The next move was to 1000 Connecticut Avenue, at the corner of Connecticut Avenue and K Street. RAND now had even more "spacious" quarters, occupying the thirteenth floor and a portion of the twelfth floor (a library was located down a flight of interior stairs). RAND's name and fame were spreading widely at the time, not always without incident. One of these incidents followed the publication of a RAND study by Paul Kecskemeti. Titled *Strategic Surrender*, it was described in an article in the *St. Louis Post-Dispatch*, which alleged that the RAND study dealt with some future surrender of the United States. The article was included in the *Congressional Record* at the request of Senator Stuart Symington and caused some senators to protest against the use of public funds to support such a defeatist attitude. Articles

in the *Washington Post* and *New York Mirror* reported that then President Eisenhower was "shocked" and "more excited than at any time since assuming the Presidency." Both RAND and the Department of Defense (which was accused of sponsoring several other studies on surrender) published rebuttals of the charges. RAND described the study as an historical analysis of several cases of surrender during World War II and cited the fact that the study did not consider even a hypothetical example of surrender to any country.

Other examples of the growing prominence of RAND's Washington office were evident in the variety of newspaper and magazine articles, as well as books, about or including material about RAND. And throughout these years, the Washington office saw a stream of distinguished U.S. and foreign visitors and was the site for a host of conferences and seminars on public-policy and national-security topics.

Then RAND moved again, this time to 2100 M Street, N.W., occupying the eighth floor and, later, a portion of the sixth floor. The Washington office continued to grow, despite occasional

ups and downs, to the current level of about 150 research and support staff and consultants. It also continued to be a popular location for visitors, seminars, conferences, and research meetings.

Over the years, the various Washington offices have had five Managers or Directors (see pictures). The Washington administrative staff has handled the arrangements for the countless Board of Trustees meetings, working conferences, seminars, and research sessions, as well as the first D.C. gathering of Alumni Association members (see picture). For years, these activities have been under the direction of Guido (Yogi) Ianiero, head of Washington Support Operations, who also supervised many aspects of the move into the new building (including the assignment of offices—see picture).

The new offices provide a spacious and pleasant environment for the research and research-related efforts that promise to keep RAND's Washington contingent an important and productive part of the RAND family.

Washington Office Winter 95, page 9

From Phill Davison (with a bit of help from Alex George and Joe Goldsen)

On RAND's early days in Washington

"When RAND's Social Science Division was formed in June 1948, the only space that could be found for its Washington recruits was in a corner of the Douglas Aircraft Company's large conference room. Three or four members of the new division sat there for several days, filling out security forms and writing preliminary outlines for research projects.

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